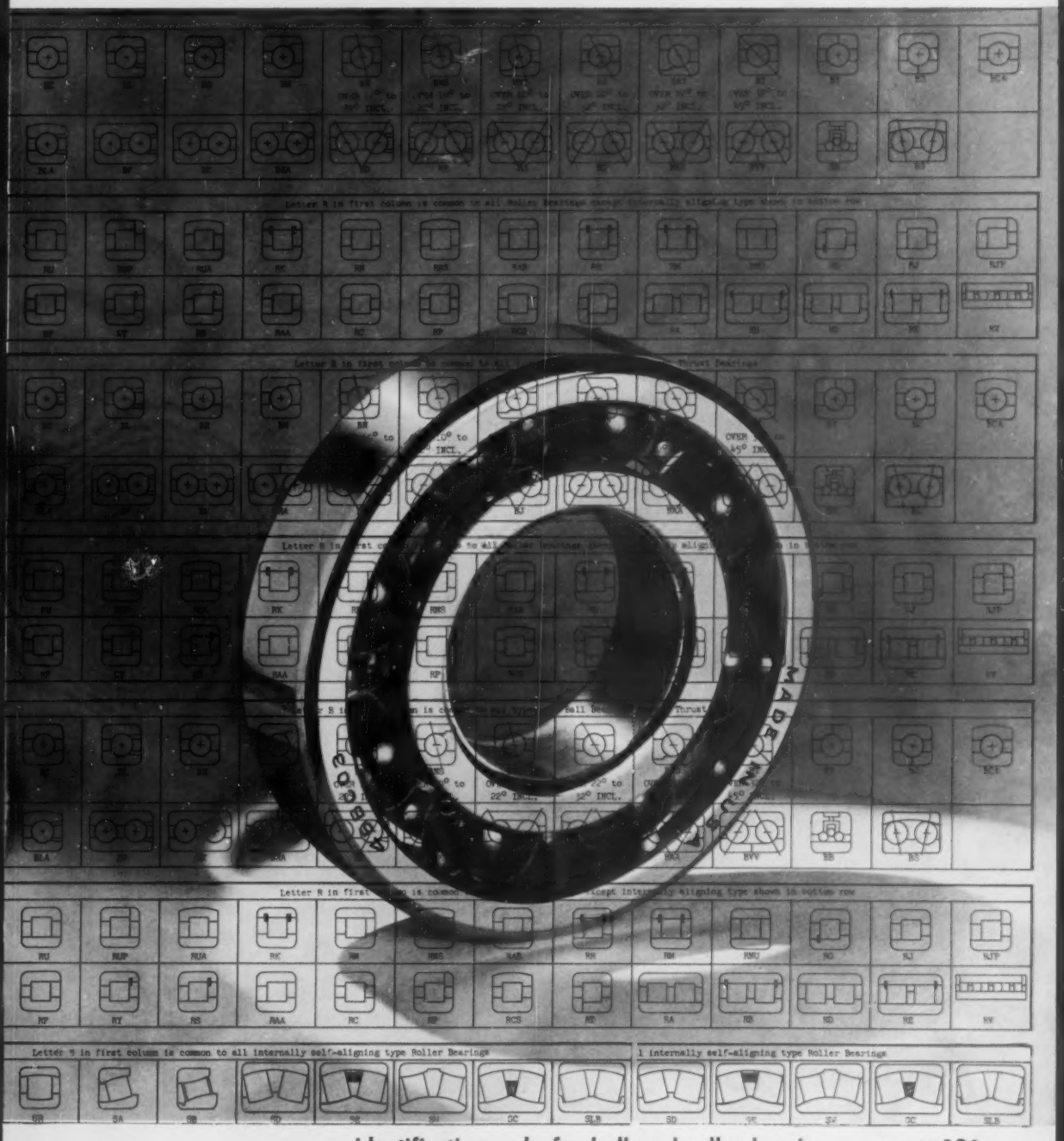
the magazine of STANDARDS


Letter B in first column is common to all Roller Bearings except internally aligning type shown in bottom row
Letter S in first column is common to all internally self-aligning type Roller Bearings

identification code for ball and roller bearings . . . page 136

MAY 1960

the magazine of STANDARDS

Standardization is dynamic, not static. It means not to stand still, but to move forward together.

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Opinions expressed by authors in THE MAGAZINE OF STANDARDS are not necessarily those of the American Standards Association.

Published by the American Standards Association, Incorporated

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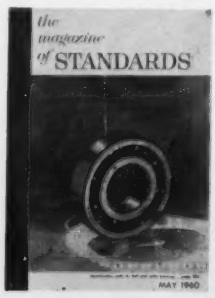
Published monthly by the American Standards Association, Incorporated, 10 East 40th Street, New York 16, N. Y. Subscription rates: Companies in U. S. and possessions, $7.00 per year; in other countries, $8.00. Public libraries, schools, and government agencies, in U. S. and possessions, $6.00 per year; in other countries, $7.00. Single copy 60 cents. Re-entered as second class matter Jan. 25, 1954, at the Post Office, New York, N. Y., under the Act of March 3, 1879. This publication is indexed in the Engineering Index and the Industrial Arts Index. Microfilm copies can be obtained from University Microfilms, Ann Arbor, Mich.

Ruth E. Mason, *Editor*
Margaret Lovely, *Art and Production Editor*

ASA

THE COVER: Faced with the problem of as many as 14 different proprietary numbers for a single type of bearing, both manufacturers and users have acted to develop an identification system for standardized ball and roller bearings. The new American Standard code identifies bearings on the basis of dimensional and functional interchangeability. Article starts on page 136.



• As the article on page 132 indicates, standards are one of the essentials for successful trade among countries. The new organizations and new industries now developing in Latin America are shown to be making notable progress. They should have easily available for reference the American Standards that can be of service to them.

notes

ASA exchanges standards with the Latin American standards bodies, and is a member of the Pan American Standards Committee, which may become an effective means for exchange of views on standards among all the Americas. American Standards are distributed only in English. Other ISO members, the German and British standards associations, distribute Spanish translations of their national standards in Latin America.

There can be no expectation nor desire that standards of one country be adopted in their entirety in another country. But the very procedures of voluntary standardization require that information be available for use by those concerned. The new Latin American standards associations cannot understand U.S. views on standards unless they know what those views are.

Recently, President Eisenhower asked Congress to support what Secretary of Commerce Frederick Mueller calls a "hard sell" trade program. And *Business Week* comments: "For the first time in the history of this country, the government is launching a national program to expand exports."

Robert Paxton, president of General Electric, points out: "If foreign producers are enlarging their share of the internal market, they are also becoming more affluent and providing richer markets."

There is no "hard sell" in standards. But exchange of views on standards, making standards available, and cooperation both nationally and internationally bring about a climate of understanding invaluable in international trade.

This Month's Standards Personality

F. R. Fetherston

ALTHOUGH A MINING ENGINEER by education, F. R. Fetherston has spent most of his career in safety work. As secretary-treasurer of the Compressed Gas Association since 1927, he has contributed to safety standards that are recognized in state laws throughout the country and used in ICC regulations. He himself is most proud of a system of pin connections for cylinders for anesthetic gas. These especially designed connections eliminate the possibility of putting the wrong gas in a cylinder at the filling center and reduce the possibility of errors in the operating room. Through Mr Fetherston's efforts, this system is not only an American Standard but also is being used internationally. In his own words, he "had the fun of selling the idea" at meetings of ISO Technical Committee 58, and visited many European countries to discuss the idea with interested health authorities. Mr Fetherston considers this standard "quite an achievement in the interest of humanity."

Mr Fetherston is one of the four U.S. delegates recommended by industry as members of CPI (the permanent international commission that acts on standards and regulations affecting safety in production and use of acetylene calcium carbide throughout the world.)

He has attended every plenary session of the International Organization for Standardization's Technical Committee 58, Gas Cylinders, and is proud of the fact that he has sometimes been called upon to represent the Canadian Standards Association as well as ASA.

As a member of the committees of the National Fire Protection Association, the American Society for Testing Materials, and national committees organized through the American Standards Association, he contributes to this country's safety program. He is chairman of the Committee on Gases of NFPA, having served for the past five years, and a past member of the NFPA Board of Directors. In 1959 NFPA presented its Distinguished Service Award in appreciation of "outstanding service over many years." Mr Fetherston is chairman of ASA Committee K61, Storage and Handling of Anhydrous Ammonia. He is also a member of ASA's Chemical Industry Advisory Board and Standards Council.

Starting his career after the first world war by operating two plants set up to concentrate tungsten ores by the electromagnetic process, he left to help design and construct the Wanaque Reservoir, which supplies water to many New Jersey municipalities. From there he went to the Compressed Gas Association. For many years, he also acted as secretary-treasurer of the Liquefied Petroleum Gas Association, serving from 1946-1959 as LPGA's vice-president in charge of technical activities.

Mr Fetherston and his wife have a three-acre property near Plainfield, New Jersey. Their daughter is a sophomore at Vassar. Mr Fetherston's hobbies include golf and stereo photography.

Central American Research Institute for Industry
Pan American Standards Committee
LEGEND:
Central American Free Trade Area
Latin American Economic Association (Free Trade Area)

AREAS OF FREE TRADE IN LATIN AMERICA

Latin America:

Industrial Development and Standards

by HERBERT BETZ

Program Specialist, Division of Industrial Technology and Productivity, Department of Economic and Social Affairs, Pan American Union

IN ORDER TO EVALUATE AND REVIEW the status of present efforts to develop product standardization in Latin America, the study must be considered within the broader framework of the present production, manufacturing, and trade conditions of the area. That the Latin American scene is a rapidly changing one is well known and has been recently

reflected by President Eisenhower's trip to South America. A brief discussion of very recent developments in Latin American trade and manufacturing should therefore precede the examination of standards activity in the American republics.

During the month of February, shortly prior to the time of the President's trip, seven of the twenty-one member nations of the Organization of American States adopted a treaty for the establishment of a Free Trade Area in Latin America. This action on the part of the seven nations — Argentina, Brazil, Chile, Mexico, Paraguay, Peru, and Uruguay — can be expected to produce a great impact on the industry and trade of the region. Trade among the seven republics will in the future be spurred by the annual reduction of tariff barriers which now exist between the countries. The treaty now in effect provides for complete elimination of barriers to trade among themselves within twelve years.

A second event during the month of February which promises to have considerable impact on the developing industry of Latin America is the establishment of the Inter-American Development Bank. In February, the first meeting of the Bank's Board of Governors was held, at which the president and executive directors were elected. The Bank is now rapidly organizing its staff in order to carry out its important mission — to stimulate and spur the development of the industrial and economic base of the twenty republics it will serve. With a capitalization of one billion dollars, the Bank will help finance industrial and power projects in Latin America.

In Central America, recent agreements between five countries have provided a great stimulus to the industrial developments there. In June 1958, a treaty was signed by Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua to join in a regional trade agreement. This Multilateral Free Trade Treaty provides for annual tariff reductions of ten percent each year. An Agreement on Central American Integration Industries was also signed at the same time as the trade treaty. This agreement provides for free unrestricted trade for a selected list of products produced in "integration industries" — products for which the national market of any one of the member countries is too small to support production. In January 1960, three countries of the region, namely Guatemala, El Salvador, and Honduras, signed a treaty of economic association aimed at speeding the integration of the three countries.

These several important developments influencing the growth of industry in the American republics will help the countries of the region meet their great need for manufactured products. Although rapid strides have been made by manufacturing industries in the recent past — Latin American industrial production increased 65 percent between 1948 and 1958 — each of the 20 American republics still relies on imports from outside the region for satisfaction of its needs in virtually all manufactured goods. Particular exceptions exist, such as the clothing, footwear, and textile industries, where domestic production now satisfies the national market requirement. Largely because of the extreme trade restrictions of the region, exports from each of the nations are limited to foodstuffs, raw materials, and a small amount of textile manufactures.

Although the conditions of the recent past prevented intra-Latin American trading in manufactured goods to any considerable degree, the picture is rapidly changing. In several industries facilities are under construction and others are in the stage of planning to produce for export to other countries of the region. The decade of the sixties will undoubtedly witness a strengthening of such trade through the common markets.

With the aid of this brief survey of recent trade and industrial production developments, it is possible to review the status of standards activity in the area at present and in recent years. Because of the rapidly changing need for standardization of products in Latin America, it will be convenient first to consider the status prior to 1958.

The manufacturing conditions and trade conditions of the region prior to 1958 presented a need for standardization which was limited largely to the development of standards programs at the national level. The small amount of trade between the 20 nations particularly in manufactured products has in the past provided only a small need for the adoption of regional standards. In response to the need at the national level, national standards institutes have been created in eight of the Central and South American States — in Argentina, Brazil, Chile, Colombia, Cuba, Mexico, Uruguay, and Venezuela. In addition to these national standards institutes, other member states of the Organization of American States (OAS) have standards programs but do not yet have autonomous associations for this purpose.

At the inter-American level before 1958, the need for a program of standards was concentrated in the area of creating national standards institutes. It is in this area that the Organization of American States and the Pan American Union, which serves the OAS as secretariat, have concentrated their past efforts. The Pan American Union was instrumental in the joint effort which resulted in the establishment of the Pan American Standards Committee (PASC) in 1949. At that time, this committee — the first inter-American standards agency — was established under a constitution which limited its membership to those nations which had national standards institutes. Lack of financial resources has precluded real progress by the Pan American Standards Committee.

The OAS has continued to promote national standards agencies through its collaboration with the Pan

American Standards Committee and through the Inter-American Meeting of Experts on Standards which it organized and sponsored in 1957 in Rio de Janeiro. This meeting provided an opportunity to discuss proposals to strengthen the standards programs of the Hemisphere by the representatives of the member nations present. At the conclusion of the meeting it was recommended that the PASC should be strengthened to enable it better to carry out its objectives. Recommendation was also made for revision of its statutes to provide for membership of all the countries of the Hemisphere — without regard to the existence of an autonomous standards agency within the country.

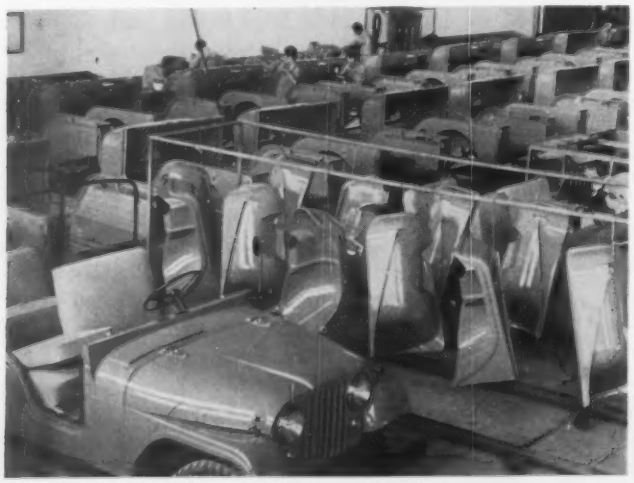
STANDARDIZATION activities since 1958 must be given separate consideration, as they provide valuable experience in the projection of future developments in Latin American standards programs. Advances in standardization within Latin America since the year 1958 have largely been centered in Central America. In 1958, the agreement mentioned previously was signed by the five countries — Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua — to establish a Central American Free Trade Area and to establish "integration industries." This created an immediate need for concrete action on product standardization. With the movement of products of the "integration industries" across national boundaries with complete freedom from tariff barriers, a great challenge arose to the ability of industry to devise and agree on production standards. This need was met through the initiation of a standards program at the Instituto Centro Americano de Investigación y Tecnología Industrial[1] (ICAITI) in Guatemala City. In its present program, the Institute is aiding Guatemala in the establishment of a national standards institute. It is also making studies and proposals for laws, schemes of organization, and regulations with the aim of integrating the standards activities of the five countries of the area. The ICAITI has the long-run objective, among its many other research activities, of becoming a regional standards association or "bureau of standards" for Central America in the future. A study of standardization of construction materials is also being made by a United Nations technical expert assigned to the Institute.

Actual adoption of standards by the five Central American countries came swiftly with the creation of the Free Trade Area. In 1958, the five countries adopted the Central American Agreement of Standard Road Signs and Signals. Included under this agreement were road signs, traffic light signals, and pavement markings. It is interesting to note that, at the same time, the Central American Agreement on Road Traffic was adopted, which provides for uniform principles and rules for traffic in their respective territories. Central America also has made a great advance in the standardization of trade commodity classifications in order to provide uniform customs tariffs.

The entire Latin American region finds itself today in a position similar in many ways to that of the five Central American Republics in 1958. The need for the adoption of regional standards for the entire area through an active inter-American standards institute has changed greatly. Since the time of the 1957 Inter-American Meeting of Experts on Standards, rapid industrial development and the establishment of the Free Trade Area have combined to produce a strong need for regional standardization of production. Should this need not be met, it would result in considerable financial loss to industry as well as loss in economic development generally, and would prevent the most efficient functioning of the new Free Trade Area Treaty.

That an effective response is necessary can be clearly seen from the present developments in Latin American industry. The increase of intra-Latin American trade which the reduction of tariffs will permit is

[1]The accepted English name is The Central American Technological Research Institute for Industry.



A view in the Willys-Overland plant of Brazil. Brazil began export of motor vehicles in 1958. In 1959, orders had already been received from four of Brazil's neighboring countries before the year's production had begun.

The blast furnace shown here under construction in 1944 is being used in Brazil's huge steel mill at Volta Redonda. The mill, built with credits from the U.S., has sufficient capacity to produce two-thirds of Brazil's steel needs. It went into production in 1946. In 1950 it produced 859,000 tons of steel.

already evident in the plans of the expanding industries. Brazil began its export of motor vehicles in 1958 with the shipment of 25 jeeps to Chile. In 1959, the Brazilian motor vehicle industry had received orders for 2,500 vehicles from four of its neighboring nations before the year's production was begun. In all of Latin America the production and assembly of motor vehicles increased from 61 thousand units in 1955 to 128 thousand units in 1957. Among the industrial products which are beginning to be produced or for which plants are presently being constructed are the following: hydraulic and thermo-electric turbines, heavy generators, power transformers, high-capacity boilers and steam plants, drilling pumps, rock-drills, furnaces and mills for the cement industry, equipment for the pulp and paper industry, various items of construction equipment, a variety of machine tools, and household appliances and office machines. The increase of steel production of the area will also allow for increasing exports from the main producing countries of Mexico, Chile, Brazil, and Argentina.

The relationship of an active inter-American standards institute with other organizations should be considered briefly. Such a regional agency for the adoption of Latin American standards could act effectively within the International Organization for Standardization and a working arrangement could be established. The five Central American nations which have joined their standards programs may desire to be represented within the inter-American body through a Central American Standards Bureau. Industry groups such as the recently formed Instituto Latinamericano del Acero (the Latin American counterpart of the American Iron and Steel Institute) could act through the inter-American standards body in a manner similar to the way in which industry groups act within the American Standards Association.

THE STRUCTURE of a regional standards institute might assume various forms to meet the present and future needs of Latin America. The solution adopted by Central America of combining two institutes has much appeal and is presently under study by the Organization of American States. The joining of the activities of a Latin American standards institute with an institute for industrial research or a productivity research center provides many advantages: access to a highly qualified technical staff, access to research and testing facilities, a stable financial status. In this latter connection, the establishment of ICAITI may be considered. The Institute was established in 1956 by the Central American Economic Cooperation Committee, with the assistance of the Economic Commission for Latin America of the United Nations. It has received aid from the United Nations Technical Assistance Administration. Recently it received aid from the United Nations Special Fund in an arrangement where the Fund has granted $900,000 to the Institute for the period 1960-64 on the condition that the five countries each contribute $52,000 annually during the five-year period. An aspect of the present study being undertaken by the OAS to evaluate the joining of a standards institute and a productivity research center is the Inter-American Meeting of Experts on Productivity it is sponsoring in Mexico during the latter part of April. At these meetings, proposals for the establishment of a productivity research and training center will be discussed. As a special aspect of the general considerations, the question of joining the programs of such an institute with those of an inter-American standards institute will be considered. The OAS also is undertaking a study project to survey the technological research facilities which exist in the American Republics. The study will provide guidance for the establishment of a productivity center as well as information as to the availability of laboratories in each of the member states at which testing studies for the standardization programs may be carried out.

An alternative solution to the "dual" structure for the regional standards institute is to strengthen the already functioning Pan American Standards Committee. If this alternative is pursued, the PASC must be aided in obtaining sufficient funds to finance a concrete program. Whatever organizational solution is adopted, financial aid should be encouraged from the United Nations, from the International Cooperation Administration, and from interested trade associations and their industrial components. It is in a field such as this that technical assistance grants can make a great impact to develop industry in a wide area.

Identification for Ball and Roller Bearings

by JERRUS M. BRYANT

A CONCISE, ACCURATE, and economical means of identifying Group I and Group II standard bearings is now provided in an alpha-numerical code approved early this year as American Standard B54.1-1960. Group I bearings are annular ball bearings, cylindrical roller bearings, internally self-aligning roller bearings, and airframe bearings. Group II are thrust ball bearings and spherical thrust roller bearings excepting tapered roller bearings. Insofar as possible the standard identifies each bearing on the basis of dimensional and functional interchangeability.

Group I bearings are considered to be in two categories—(1) standard, and (2) airframe.

"Standard" bearings are those bearings whose external boundary dimensions (bore, outside diameter, and width) and tolerances are in agreement with American Standards in the B3 series,[1] and are covered by the general plan for boundary dimensions given in tables in the new B54 standard.

"Airframe" bearings, used primarily for aircraft control, have been standardized by industry and government as to dimensions and nomenclature without a general boundary plan. The full code for type and bore, expressed to the exact or to the nearest 1/16 in., is given in Table 50, Airframe Bearing Type Symbols and Boundary Dimensions, of American Standard B54.1-1960. This type code is used directly as the basic number for airframe bearings as provided in section 1 of the code for Group I bearings.

[1] At the present time the B3 standards that include boundary dimensions are B3.5-1951, Tolerances for Ball and Roller Bearings, and B3.10-1959, Requirements for Instrument Precision Ball Bearings. The B3 committee is planning, however, to develop a comprehensive plan for boundary dimensions.

The identification code for Group I bearings is composed of five sections, as shown in Figure 1.

Similarly, there are five sections for coding Group II bearings, as shown in Figure 2. These differ from Group I in the content of sections 1, 2, and 3.

The first section of the code provides for dimensional interchangeability of the basic bearing. This was accomplished previously by proprietary numbers assigned by the various manufacturers. In 1941, approximately 17 individual "company" parts numbers were used to identify a given bearing. Now, using the code, we may identify a basic standard deep groove ball bearing having 40-mm bore, 80-mm outside diameter, and 18-mm width, for example, as a 40BC02 bearing. The letters BC are used to indicate a standard deep groove ball bearing, while the prefix number 40 indicates the actual bore in millimeters, and the suffix number 02 is obtained from the Ameri-

MR BRYANT is chief engineer, Link-Belt Bearing Plant, Indianapolis, Indiana, and chairman of Sectional Committee B54, Identification System for Anti-Friction Bearings. He is also chairman of Working Group 1 of the International Organization for Standardization's Technical Committee 4, Ball and Roller Bearings. Sectional Committee B54 is sponsored by the Anti-Friction Bearing Manufacturers Association, and Mr Bryant is chairman of the AFBMA Code Committee, as well as representative of AFBMA on the B54 committee.

Copies of American Standard B54.1-1960, Identification Code for Ball and Roller Bearings, can be obtained from the American Standards Association at $4.00 each.

	Section 1			Section 2	Section 3		Section 4	Section 5
	Bore	Type	Width and Outside Diameter	Cages, Seals, Shields, Modifications	Internal Fit	Tolerances	Lubrication	Special Requirements
STANDARD	0000	AAA	00	AAAA	0	0	A	00
AIRFRAME	Individual combinations of letters and numbers							

Figure 1. The Identification Code for Group I Bearings

Section 1			Section 2	Section 3	Section 4	Section 5
Bore	Type	Height and Outside Diameter	Modification of Design	Tolerances	Lubrication	Special Requirements
000	AA	00	AA	0	A	0000

Figure 2. The Identification Code for Group II Bearings

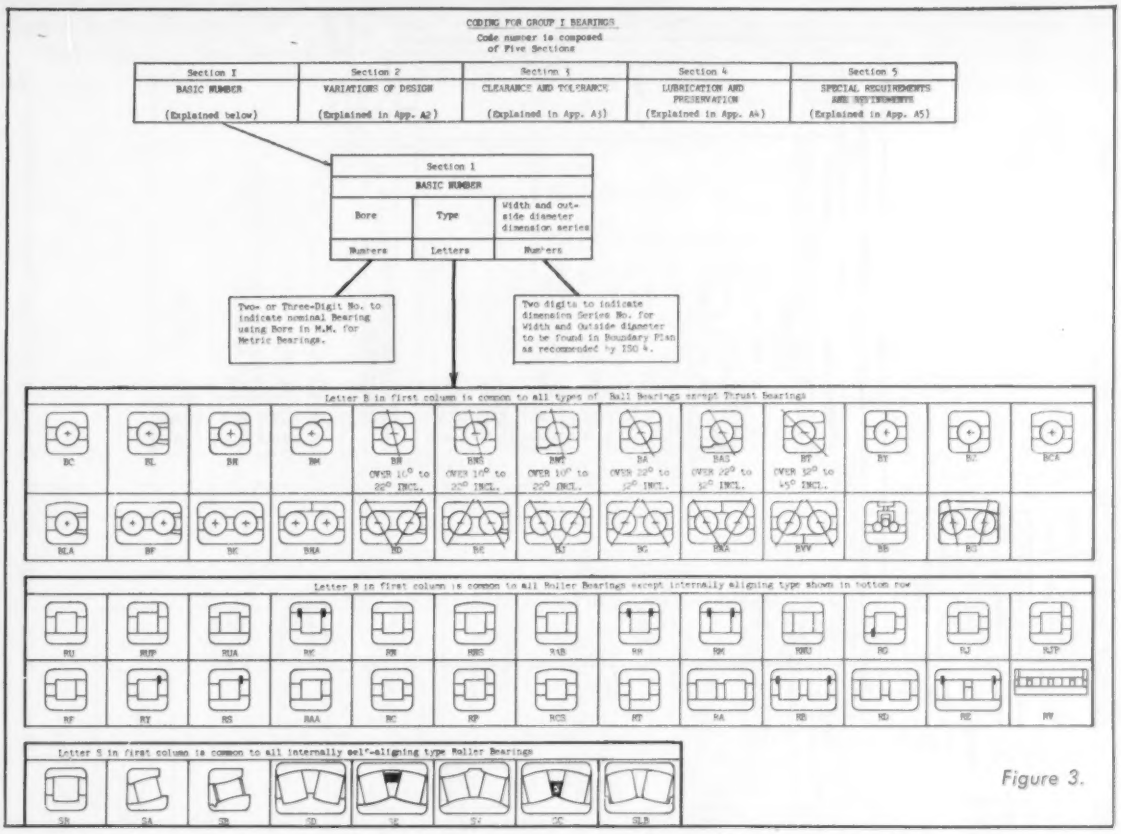

CODING FOR GROUP I BEARINGS
Code number is composed of Five Sections
Section 1
BASIC NUMBER
(Explained below)
Section 2
VARIATIONS OF DESIGN
(Explained in App. A2)
Section 3
CLEARANCE AND TOLERANCE
(Explained in App. A3)
Section 4
LUBRICATION AND PRESERVATION
(Explained in App. A4)
Section 5
SPECIAL REQUIREMENTS AND SUPPLEMENTS
(Explained in App. A5)
Section 1
BASIC NUMBER
Bore
Type
Width and outside diameter dimension series
Numbers
Letters
Numbers
Two- or Three-Digit No. to indicate nominal Bearing using Bore in M.M. for Metric Bearings.
Two digits to indicate dimension Series No. for Width and Outside diameter to be found in Boundary Plan as recommended by ISO 4.
Letter B in first column is common to all types of Ball Bearings except Thrust Bearings
Letter R in first column is common to all Roller Bearings except internally aligning type shown in bottom row
Letter S in first column is common to all internally self-aligning type Roller Bearings

Figure 3.

can Standard boundary dimension plan (see Tables 45, 46, 48, and 49 of American Standard B54.1-1960) to identify the combination of 80-mm outside diameter and 18-mm width. When the code 40BC02 appears, it is understood to mean that the manufacturer's standard cage, internal clearance and tolerance, and rust-preventive slushing compound are used.

The subsequent code sections, 2, 3, 4, and 5, deal rather directly with characteristics such as clearance, tolerance, sealing, etc, which have direct relationship to the operational characteristics of the bearing.

This identification code, it is expected, will gradually supplant the long-outmoded system of proprietary numbers used by the various manufacturers to identify an interchangeable product. A check of 40 bearing manufacturers, including manufacturers in the USA, Germany, England, Sweden, Switzerland, Austria, France, India, Italy, Spain, Australia, and Japan, showed the following proprietary numbers used for a # 40BC02 bearing:

6208	1208	208	A40	140	5A
6208C	3208	208K	LJ40	BRL 040	
		208S	UL40		
		T208			

THE NEED for some uniform method of numbering and identifying ball and roller bearings was accentuated by the problems of the war years in the early 1940's. The fast-expanding ball and roller bearing industry, with some 14 different numbers for the same interchangeable part (listed above) came to the realization that something should be done, beyond a mere interchange list, to identify interchangeable bearings dimensionally and functionally. In too many instances, organizations had flown bearings to points of need in various parts of the world, only to find that an interchangeable bearing was already in stock at the site under a different number.

The bearing industry, through the officers of the Anti-Friction Bearing Manufacturers Association, started work on a code on April 24, 1941. Portions of this manufacturers' code had been completed by 1945. The completed code was published for general distribution in 1950, as Section 5 of the AFBMA standards.

During the early years of developing the code, it was quite common to refer to this work as a "numbering system." Actually, it is an identification code, as now approved.

At this time not only the bearing industry, but also the Navy and Army, started to develop a numbering system. Different views were held on how the numbering should be done. One philosophy was to number every conceivable bearing and housing made, which of course embraced both standard and special parts. Another philosophy was to number all bearings cataloged by the bearing manufacturers. Still a third group suggested that only bearings standardized by the industry should have a standard number and that

Section 1
Section 2
Variations in Design
Section 3
Section 4
Section 5
Column 1
Cage, Retainer or Separator Data
Column 2
Snap Rings or Tapered Bores or Lubricating Hole in Outer Ring
Column 3
Alternate for Lubricating Hole in Outer Ring when Tapered Bore is Coded in Column 2
LETTER
LETTER
LETTER
CAGES, RETAINERS, OR SEPARATORS - CODE LETTERS TABLE A
Description
Column 1
CAGES
Any type of cage acceptable X
Steel not in sheet, strip, or wire form F
Light metal, not in sheet or strip form, ring centered H
Strip steel, any type strip steel cage acceptable, centered by rolling elements J
Strip steel, ring centered A
Bronze or brass, not in sheet or strip form, ring centered K
Bronze or brass, not in sheet or strip form, centered by rolling elements M
Porous Metal P
Non-metallic, centered by rolling elements T
Non-metallic, ring centered D
Strip steel, one piece per row of balls or per bearing, centered by rolling elements W
Strip metal, non-ferrous, centered by rolling elements Y
Strip metal, non-ferrous, ring centered B
SEPARATORS
Separator or spring spacer Z
No cage or separator V
SNAP RING LOCATION (Cylindrical Roller Bearings) TABLE B
CODE STANDARD Column 2
NORMAL POSITION
For Snap Ring Included "G"
Snap Ring either side of symmetrical outer ring bearings except Type NG
For Snap Ring Not Included "N"
Snap Ring on integral rib side of single rib outer rings
Snap Ring on Small Bore side of Tapered Bore Bearing
TYPE NG
Snap Ring on side opposite integral inner ring rib
OPPOSITE NORMAL POSITION
For Snap Ring Included "C"
Snap Ring on side opposite integral rib of full width single rib outer ring
For Snap Ring Not Included "A"
Snap Ring on Large Bore side of Tapered Bore Bearing
TYPE NG
Snap Ring on integral rib side of single rib inner ring
TAPERED BORES TABLE C
Column 2
ROLLER BEARINGS HAVING OVERSIZE SYMMETRICAL INNER RINGS
AU, BAU, ABU, RPU
For Taper of 1 - 12 K
BC, KP, MK, MT, SM, RP
SR
For Taper of 1 - 30 T
SD
SEA
SC
SE
SW
OTHER FUNCTIONAL PARTS AND CHARACTERISTICS TABLE D
Columns 2 Without Tapered Bore | 3 With Tapered Bore
SW
SD
Lubrication hole in outer member of bearing
L L
SE
SC
SEA

Figure 4. Application of Code Section 2 for Group I Roller Bearings

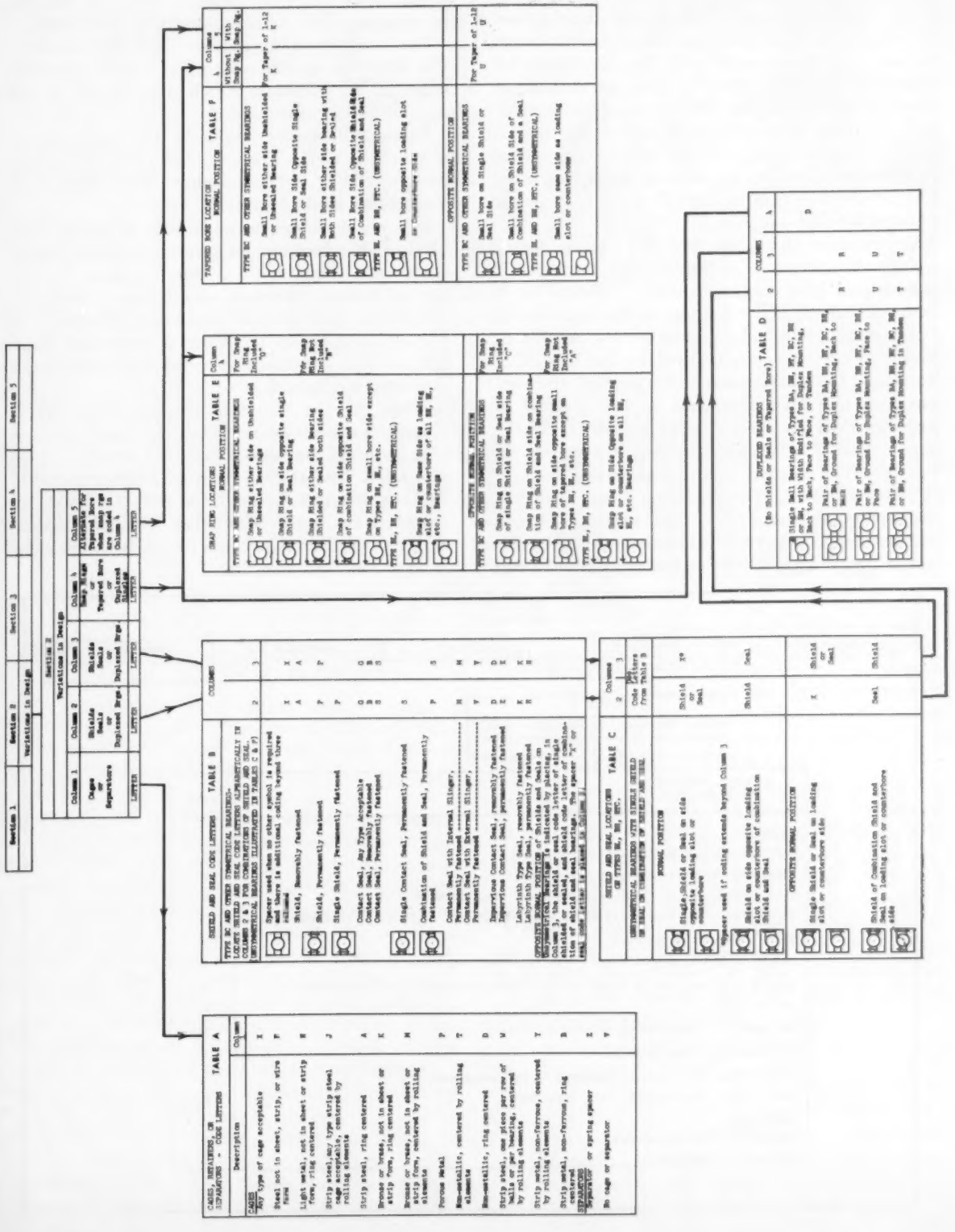
Figure 5. (below) Application of Code Section 2 for Standard Ball Bearings

housings and their bearings should not be numbered because there was at that time no standardization in the industry. This third approach seemed practical to those concerned and it was on this basis that the new identification code was prepared. However, while the numbering system is confined to standardized bearings, it should be possible to extend it readily to embrace all conceivable types of rotatable ball and roller bearings.

In the beginning, the committee had no precise ground rules for its procedure. The Navy and Army centered their activity on a straight numerical system of numbering. The AFBMA centered its work about an alpha-numerical system because, in addition to

being a more meaningful code, it provides a shorter code than the straight numerical system.

Ultimately, the two systems were completed, and efforts were made to bring both groups together to approve one of the systems. Finally, ASA Sectional Committee B54 was organized in November 1946, to study both systems and make recommendations. This committee was charged with the responsibility of de-


Section 1
Section 2
Section 3
Section 4
Section 5
Variations in Design
CAGES, RETAINERS, OR SEPARATORS - CODE LETTERS TABLE A
SHIELD AND SEAL CODE LETTERS TABLE B
SHIELD AND SEAL LOCATIONS OR TYPES ETC. TABLE C
DUPLEXED BEARINGS (No Shields or Seals or Tapered Bore) TABLE D
SNAP RING LOCATIONS NORMAL POSITION TABLE E
TAPERED BORE LOCATION NORMAL POSITION TABLE F

veloping a numbering system for the identification and classification of ball and roller bearings.

THE COMMITTEE decided that the ideal code would provide a universal language for describing and identifying American Standard ball and roller bearings for the purpose of facilitating communications between the user and the manufacturer. The code should be concise and provide a quick, accurate, and economical means of transmitting an engineering description of ball and roller bearings. The committee felt that it would be impractical to set up the code for use as part numbers, drawing numbers, or accounting numbers, although in isolated cases it might be practical to use it for such purposes.

Shortly after ASA Committee B54 became active, considerable interest in coding got under way at the international level. In January 1952, Technical Committee 4, Ball and Roller Bearings, of the International Organization for Standardization held a meeting in New York. A document prepared by the ISO/TC 4 Secretariat for consideration at this meeting discussed proposals and listed documents on coding dated as early as February 1949. It also recommended the appointment of a committee to study the subject. At the ISO/TC 4 meeting held in Gothenburg, Sweden, in September 1953, Working Group 1 was formed to study proposals from France, Italy, Poland, USA, and Sweden, and to recommend a suitable code. ASA Committee B54 concluded its tentative draft in 1959, but withheld publication until the final action of ISO/TC 4 at Berlin in 1959. In this way it was possible to make minor corrections without the attendant difficulties of changing an approved American Standard. We now have a draft international standard (Draft ISO Recommendation No. 157) in substantial agreement with the recently published American Standard B54.1-1960.

Many important suggestions came to Committee B54 from the international group, which materially improved our American Standard code, and we are grateful for this assistance.

Figure 3 illustrates graphically the application of section 1 for Group I bearings and shows at a glance the type coding and arrangement of the basic code numbers for all the bearings.

Figure 4 illustrates the application of section 2 for Group I roller bearings. Supplemental coding covered in sections 2, 3, 4, and 5 is quite extensive. For the sake of brevity, therefore, only Group I, section 2, comprising standard ball bearings is illustrated in Figure 5, and Group II, section 2, comprising thrust ball bearings and thrust spherical roller bearings, is illustrated in Figure 6.

While the new American Standard B54.1-1960 is complete for a vast market of bearings, there are many other bearings that should have like attention in the near future. The AFBMA Bearing Identification Code, AFBMA Standard Section 5, on the other hand, has advanced into many other areas, and should satisfy industry's needs in the interim period, before development of American Standards.

GROUP II
Section 2

Section 1	Section 2	Section 3	Section 4	Section 5
	Variation in Design			

Section 2
Cage, Retainer, or Separator Data
Letter

CAGES, RETAINERS OR SEPARATORS	Code Letter Column
CAGES	
Any type of cage acceptable	X
Steel not in sheet, strip or wire form	F
Light metal, not in sheet or strip form, ring centered	H
Strip steel, any type strip steel cage acceptable, centered by rolling elements	J
Strip steel, ring centered	A
Bronze or brass, not in sheet or strip form, ring centered	K
Bronze or brass, not in sheet or strip form, centered by rolling elements	M
Porous metal	P
Non-metallic, centered by rolling elements	T
Non-metallic, ring centered	D
Strip steel, non-ferrous, centered by rolling elements	Y
Strip steel, non-ferrous, ring centered	B
SEPARATORS	
Separator or spring spacer	Z
No cage or separator	V

Figure 6.

THIRD SERIES:
number one

"Above the pitch, out of tune, and off the hinges." Rabelais, Words to the Readers, Book IV

HOW A STANDARD "A" REDUCED SOUR NOTES IN THE WORLD OF MUSIC

". . . a constant source of embarrassment for ensemble music and of difficulty in commercial relations."—From instructions to the French commission assigned to recommend standard pitch, 1858.

THE TUNING FORK as a standard for musical pitch—today, the more rigorously correct term is "tuning frequency"—was invented in 1711 by John Shore, a trumpeter in the orchestra of Handel. The frequency of the tuning "A," according to later measurements on a fork of Handel's, was about 422 cycles per second.

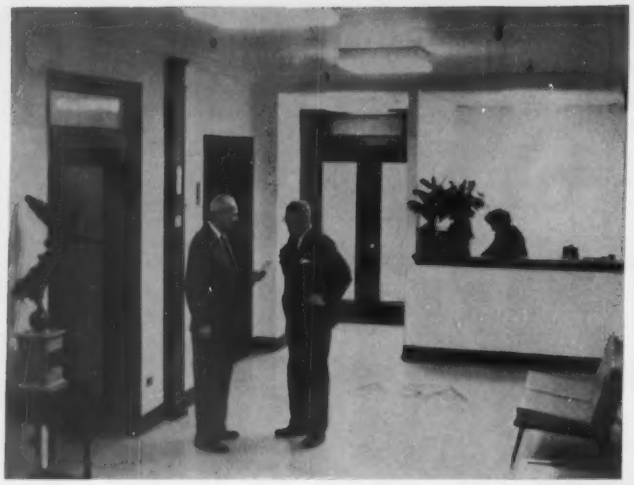
Handel's "A" was not a universally accepted standard. In 16th Century England, it seems, there were at least three viewpoints on pitch: secular music was performed at about the same pitch as we use today; the pitch for sacred polyphonic vocal music and for organ music was perhaps a whole tone higher than now; virginals were tuned something like a minor third below the modern pitch.

As military bands became popular in the 1800's, the "A" got sharper and sharper. At a congress of physicists in Stuttgart in 1834, Scheibler reported that the average piano in Vienna had an "A" frequency of 440 cycles. He proposed, in effect, that the world hold the line there. But by 1858, the Paris Opera was using an "A" of 448 cycles. A year later the French government cracked down and made an official degree: the tuning "A" would be 435 cycles per second. A standard fork was constructed that would vibrate at 435 at 15 C.

In 1885 a conference in Vienna voted to go along with France, and proposed 435 as an international standard. But in 1917 the American Federation of Musicians adopted 440 cycles per second.

Things have apparently settled at 440. It is the tuning frequency specified in American Standard Acoustical Terminology, Z24.1-1951, the first edition of which was published in 1936. And ISO Recommendation 16, published by the International Organization for Standardization in 1955, established 440 cycles as the international standard.

Nevertheless, pitch of musical instruments is still sometimes found by using a tuning fork based on middle C of 256 cycles per second. Intervals based on the American Standard 440-cycle-per-second "A," however, give a middle C of 261.6 cycles per second. So tuning musical instruments is still a matter of taste (or convenience) since the use of American Standards and international standards is voluntary.



1

Offices and conference rooms occupy entire ninth floor, mailing and multilith use part of eighth, at American Standards Association's new headquarters, 10 East 40th Street, New York. (1) Visitors step off elevators directly into ASA's reception room. Door beyond receptionist leads to conference rooms. (2) Cyril Ainsworth chats with Admiral Hussey in managing director's new office. (3) Editorial office has better light and space for editing and proofreading. (4) Sales department is conveniently located—window for cash sales opens into reception room. (5) Steel shelving holds stock of standards for mailing, on the eighth floor.

ASA's New Headquarters

10 East 40th Street

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3

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(6) More meeting space is available in the new quarters. Four conference rooms, separated by folding doors, become one big room when doors are opened. Here, a general conference on thermocouples is in session. (7) The mail room (in background) and the multilith department have quarters on the eighth floor. (8) Secretaries sit just outside engineers' offices. Recessed fluorescent lights, strategically located, provide high standard of lighting. Public relations, technical director, library, and managing director's offices are at far end of corridor. Office manager, bookkeeping, and typing are in center beyond secretaries' desks. Editorial and filing are located behind and to right of photographer. (9) Air conditioning in new quarters cuts down dust and humidity, makes open shelf filing possible in files and records department, saving space and time. (10) The enlarged library, a corner of which is shown here, provides more working space for visitors, as well as more room for standards from all over the world.

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ACCENTUATE THE POSITIVE . . .

A description of the Electronic Industries Association's reorganized component parts standardization committees

by J. A. CAFFIAUX

TO MAINTAIN AN ALERT and efficient standardization organization you must accentuate the positive and eliminate the negative.

The Electronic Industries Association recently applied this philosopy when it became apparent that the component parts standardization activities were in need of reorganization.

The "negative" was eliminated by reviewing a record of past activity and officially disbanding those committees not currently active in areas of prime concern to industry. The "positive" was accentuated by recombining the remaining groups into a limited number of concentrated committees chaired by top-level engineers.

Concurrent with the reorganization of the Engineering Department's Parts Committees, the EIA Parts Division, representing the management position, was also radically reconstructed, with the result that essentially parallel organizations in management and engineering fields have been established.

In order to appreciate fully the need of, and extent of, the reorganization, let's take a look at the over-all EIA organization and the development of its component parts activities.

The Electronic Industries Association is organized into five divisions covering consumer products, parts, tubes and semiconductors, industrial electronic products, and military products. To service these divisions, a number of departments function in such areas as engineering, marketing data, international relations, industrial relations, and military relations. All of the technical standardization effort for all divisions is conducted in the Engineering Department.

The Engineering Department structure consists of four panels, each, in turn, comprised of a number of committees covering specific products. Staff committees provide coverage in areas which, because of their general nature, cut across more than one panel or division, such as colors and numbers. All tube and semiconductor standardization is handled in the committees of the Joint Electron Device Engineering Councils (JEDEC) which is jointly sponsored by EIA and NEMA (National Electrical Manufacturers Association).

A simplified organization chart illustrating the structure described appears as Figure 1.

Since the emphasis of this article is on component parts standardization, somewhat more detailed background information on that subject seems warranted.

When the Association [then known as the Radio Manufacturers Association (RMA)] commenced standardization activities approximately 30 years ago, the emphasis was on components of "ordinary quality" of the types commonly used in ac-dc broadcast receivers. Engineering committees organized to deal with these components were known as "C" committees of the Receiver Component Panel. Some 15 years later, as the component requirements for military and industrial needs were recognized as being more severe than those covered by "C" committees, a panel of special quality (SQ) component committees was organized.

Thus, during this period we find, for example, Committee SQ-7 formulating standards on such items as electrolytic capacitors for industrial application, and Committee 34C working on standards for electrolytic capacitors for general use.

The "C" and "SQ" committees served industry well for many years as evidenced by the many component standards issued and put into practice. However, in the last few years it has been increasingly difficult to distinguish between "ordinary quality" and "special quality" components because of a general improvement in the over-all quality of all components. Further, the SQ and C panels, during their many years of

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MR CAFFIAUX is staff engineer of the EIA Engineering Department, and is secretary of the Standards Engineers Society. The Electronic Industries Association is a member-body of the American Standards Association and is represented on the Standards Council. It is also represented on the Electrical Standards Board and the U.S. National Committee of the International Electrotechnical Commission, the Acoustical Standards Board and Nuclear Standards Board of ASA, and on many sectional committees. The Association is sponsor of the Sectional Committee on Electronic Components, C83, and joint sponsor with the National Electrical Manufacturers Association of Sectional Committee C63, Radio-Electrical Coordination.

RELATIONSHIP OF THE EIA ENGINEERING DEPARTMENT TO THE ASSOCIATION AS A WHOLE

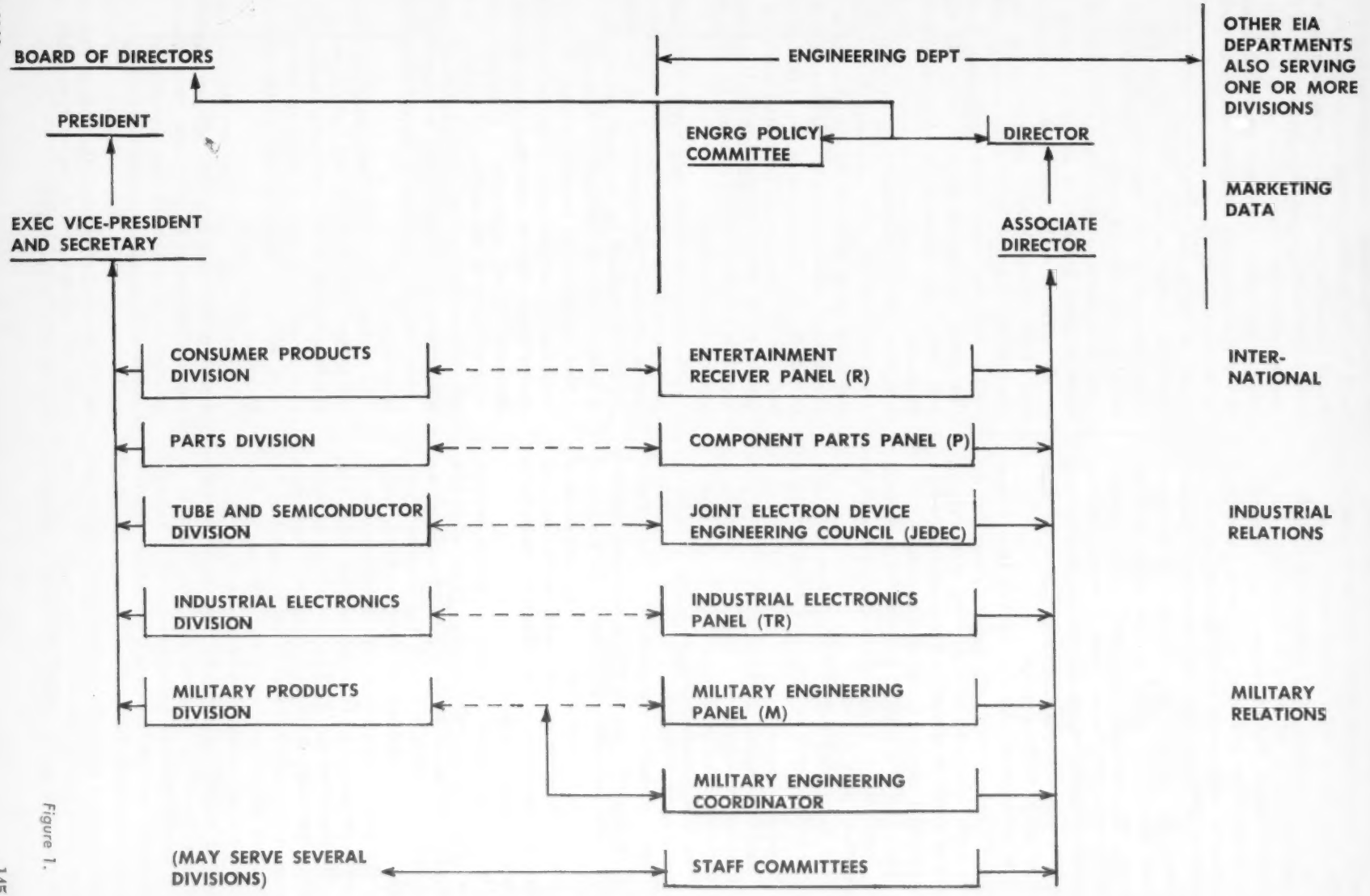


Figure 1.

existence had generated a somewhat bewildering array of vestigial groups which were perpetuated long after their "raison d'ètre" ceased to exist.

In addition, there was evidence of a need for a closer relationship between EIA management and engineering groups. The advantages of such a closer liaison included the probability of greater management support for engineering standardization activities by virtue of the requirement that initiation of standards projects be contingent upon approval of the appropriate management group. By thus having such approval, the committees could look to their management counterparts for assistance in matters such as financial support for special tests or investigations, or for increased engineering manpower for the committee and its working groups.

This arrangement also was desirable from a management view, since it provided assurance that the very appreciable costs of engineering committee operations would be utilized on those projects to which management attached the greatest importance.

These then were some of the reasons that prompted the Association to completely reorganize the whole component parts structure.

New "Component Part (P)" committees have been, or are in the process of being, established as follows:

Resistive components	(P-1)
Capacitive components	(P-2)
Inductive components	(P-3)
Electromechanical components	(P-5)
Wire, cable, and conductive accessories	(P-7)
Sound system components	(P-8)
Printed and modular components	(P-9)

Each committee has an EIA management counterpart in the form of a subdivision of the Parts Division, and on the next strata, each working group of each committee has a management section concerned with the same product. This parallel organization is partially shown in Figure 2.

In varying degrees, a somewhat similar management-engineering parallelism exists in the other EIA divisions and panels shown in Figure 1, although not organized as extensively as in the component parts field. The other divisions, however, are keenly aware of this parts activity and if it is as successful as expected, the plan might be widely adopted within EIA.

The committee and "working group" concept of the new organization is worth noting here. Each main committee (e.g., P-1, P-2, etc) will be staffed by the chairmen of the working groups reporting to that committee and possibly several members-at-large considered experts in the field. This committee will usually formulate no standards itself; instead it will provide guidance and administration to its working groups and maintain close liaison with its subdivisional counterpart. The working groups are chaired by manufacturers and staffed by both manufacturers and users of the product covered by their scopes. They are charged with specific projects and actually formulate the tentative standards. Tentative standards so formulated by the working groups are reviewed by the parent committee and panel chairman and are then widely distributed as standards proposals to all EIA member companies and others known to have an interest in the subject. Comments received as a result of this distribution are reconciled insofar as possible by the formulating group, after which a complete dossier on the proposal is submitted to the General Standards Committee for judicial review and vote. Upon approval by this committee, the material is issued as a formal EIA Standard.

Any EIA standards adopted that have potential interest to broad segments of American industry are usually submitted to the American Standards Association (ASA) for consideration and approval as American Standards. Since electronic components are widely used in electronic control applications and in other than purely electronic applications, many EIA standards have been approved by ASA as American Standards.

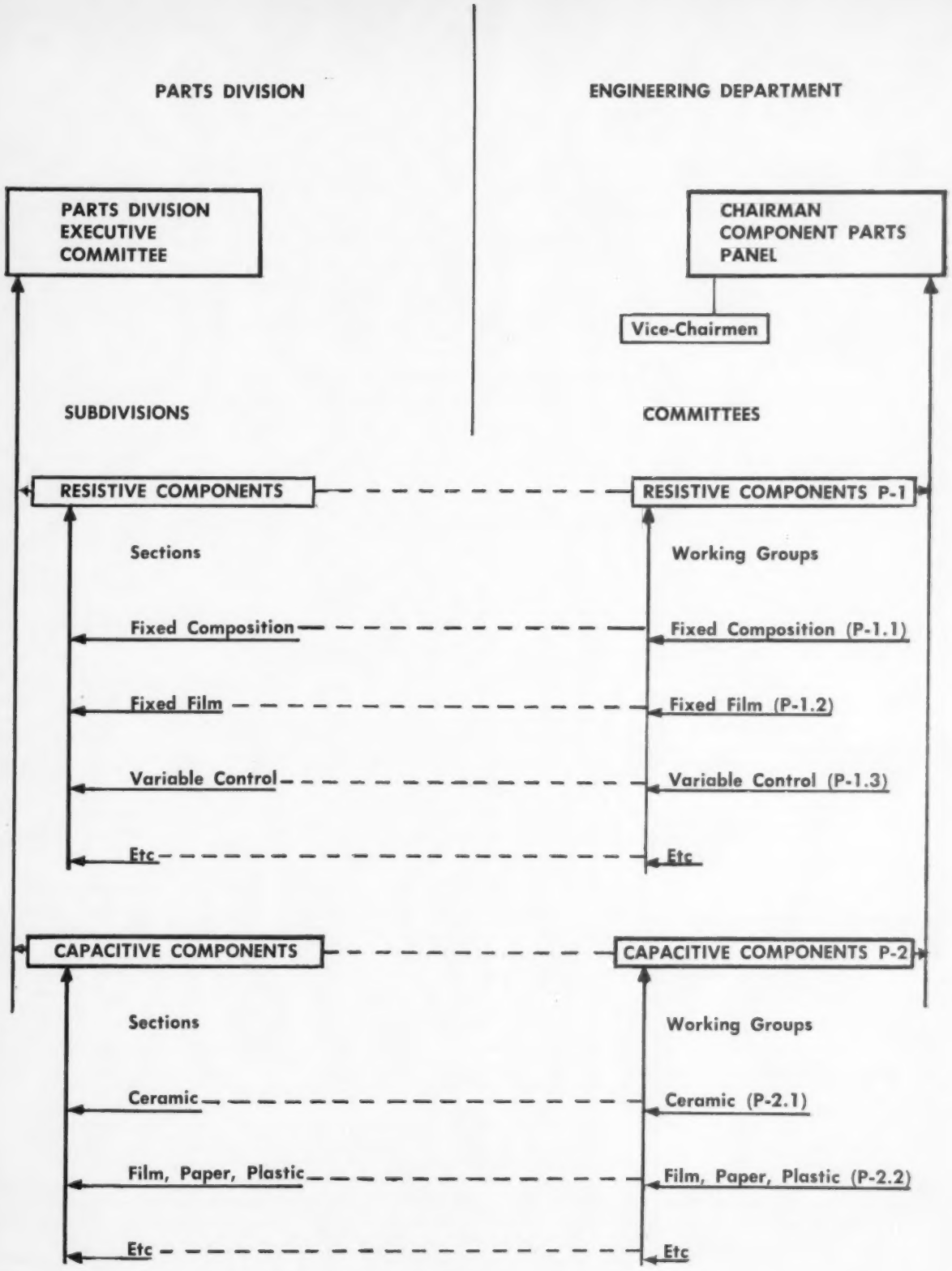
Further, with the ever increasing importance of international standards, more and more EIA standards material is being submitted for consideration of the International Electrotechnical Commission (IEC) through the U.S. National Committee of IEC. In addition, the EIA engineering committees are often requested by the USNC to formulate the U.S. industry comments for IEC proposed standards for those products within their scope.

Thus it can be seen that the channels exist whereby the output of the new component part committees (as well as all other EIA committees) may be adopted, not only as standards for the electronics industry, but as national and even international standards.

After completion of assigned projects, the groups are disbanded until the main committee and subdivision or section believes additional standardization is warranted. By such a program, it is believed, groups will not exhibit the previously noted tendency to perpetuate themselves without a specific need. Even the title "working group," rather than "subcommittee," has a heavy connotation of a group temporarily assembled to do a specific job.

As working groups fulfill their immediate objective and disband, the chairman, and perhaps one or two members, may be selected to become members of the main committee to insure a remaining nucleus in the event additional standardization of the product is authorized in the future.

To date, it appears that the new organization, as described, will provide a more efficient atmosphere for the formulation of component parts standards; however, it is recognized that the structure is not rigid, and if experience reveals the need for further modification, changes will be considered. In other words, we have accentuated the positive and eliminated the negative, but if necessary we might mess around with Mr In-Between.



(Similarly, each "P" committee and working group will have a management subdivision or section counterpart.)

Figure 2. Management Sections (listed at left) Parallel Technical Committees (at right)

This is the thirtieth installment in the current series of rulings as to whether unusual industrial injury cases are to be counted as "work injuries" under the provisions of American Standard Method of Recording and Measuring Work Injury Experience, Z16.1-1954 (Reaffirmed 1959). The numbers in parentheses refer to those paragraphs in the standard to which the cases most closely apply. Decisions on unusual industrial injury cases are issued periodically by the Z16 Committee on Interpretations.

Sectional Committee Z16 is sponsored by the National Safety Council and the Accident Prevention Department of the Association of Casualty and Surety Companies.

INDEX TO CASES 400-700. An index to Cases 400-700 has now been completed. Arranged numerically by the number of the applicable paragraph of American Standard Z16.1-1954 (R1959), the index includes the number of the case indexed and a key letter indicating what the decision was in each case. Each index reference includes a brief description of the case.

Reprints of Cases 400-700, with the index, are now available from ASA at $2.25. Discounts for quantity orders may be obtained on request.

Are These Cases Work Injuries?

CASE 768 (1.6)

On his own time, and away from work, a man attempted to cross a street, and stepped on a manhole cover, which flipped over, throwing him astraddle of the cover, and causing extreme pain in his leg and foot. He was helped to his feet, but as he reached the car he felt nauseous, and subsequently fainted. The man was then taken to the doctor, his injuries examined, and he returned to his home. Later in the day, he felt sufficiently recovered to report for his 4:00 P.M. shift at work where he was an oiler. There he related the events of his injury and physical condition to several of his fellow employees and to the assistant shift engineer.

The employee proceeded with his normal work procedure, but approximately 1½ hours later he told the assistant shift engineer that he felt faint and was going to step out of the building to get some fresh air. He proceeded toward a seldom-used heavy steel door which, due to its weight, required a degree of effort to open. He later recalled that he had hurried to the door, took the door knob in his right hand, and fainted. As he felt himself fall he apparently grasped for something to break his fall, and he thrust his left arm through the glass pane in the door, breaking the glass and severely cutting his wrist and forearm. He then regained consciousness and summoned help, at which time first aid was administered and a tourniquet applied. The man was then taken to the hospital where the severed tendons of his fingers were tied, and a blood transfusion was administered the following day.

Decision: This should be considered a work injury and included in the rates in accordance with the ultimate extent of disability. Although the employee fell because of a physical deficiency or weakness, his hand struck the glass pane in the company door, and the injury was due to a cut from broken glass, arising out of the environment of employment.

CASE 769 (1.6)

The district manager, Parts and Services, arrived in town about 4:00 P.M. for a scheduled call on the dealer. After registering at the hotel, he went to the dealership where he worked with the dealer's parts manager until about 9:00 P.M. The district manager then left to have dinner, and when he returned to the dealership some tune-up work was done on the company car. About 10:30 P.M. the district manager, the dealer's parts manager, and a mechanic went to a restaurant where the dealer's parts manager ate dinner. During the meal the conversation turned to the possible purchase of the company car by the mechanic or the dealer's parts manager, or both.

About 12:30 A.M. the three men returned to the dealership where the company car was parked. The mechanic left to go home, and later stated that no mention had been made of any further planned activity by the two men.

At 1:15 A.M. the company car, driven by the dealer's parts manager, crashed into a truck, killing himself and the district manager. The accident occurred about 25 miles east of the town where the dealer was located.

Decision: These two fatalities should be included in the work injury rates on the basis that from the time the district manager arrived at the dealership all discussions and activities were connected with work, and in the absence of specific information which would indicate that they were not connected with work, there was no reason to exclude the fatalities.

CASE 770 (1.2.4)

While standing on level ground, an employee was using a socket wrench to tighten a bolt. The wrench slipped, and the employee fell backwards, landing on his hip. About six hours later the employee was seen by a doctor who took an x-ray picture of the hip and lower section, and told the patient to take some aspirin and report back to the doctor the next morning by which time he would have read the picture after it had dried. The x-ray technician saw something in the picture which caused him to want to take another picture the following morning. When this picture was made, the doctor placed the employee in the hospital for a suspected compression fraction of the first lumbar vertebra. Two days later a brace was applied, after which time the employee was allowed to be up and about the hospital at will.

Both x-ray pictures were mailed to the company's chief surgeon, who failed to see the suspected fracture and consulted with an orthopedic specialist who concurred in the doubtful diagnosis, seeing in the area what appeared to be a slight congenital abnormality. About two weeks later the orthopedic specialist examined the patient, who had previously been dismissed from the hospital but had not returned to work and was still wearing the brace. The specialist found the man in good shape, and after spot pictures were made it was the consensus of the specialist, the x-ray technician, the surgeon who first saw the patient, and the company's chief surgeon that there was definitely no fracture in the suspected area. The patient was instructed to discontinue the brace immediately and return to work. He did so without any difficulty.

The company questioned whether this injury should be included in the rates in view of the delayed correct diagnosis and the outcome of the incident.

Decision: This injury should be classified as a temporary total disability and included in the work injury rates. It was the physician's decision that further diagnosis was indicated for the good of the patient, and although in this case the injury was not as severe as originally believed, the fact remained that time was required to make the determination.

CASE 771 (1.5 and 5.12)

An employee left his job to obtain some thinner which was stored in drums located in an area adjacent to the company parking lot. This procuring of thinner was not required of the man, but the employee who had been assigned this task was not immediately available, and the employee in question took it upon himself to go outside and get the thinner.

In going to the thinner barrel, the man slipped on ice and fell, injuring his right shoulder. Diagnosis and x-ray examination led to the conclusion that there was a fracture of the right shoulder, and the man lost time from work. On returning to work, the injured man complained about shoulder pains, and was sent for further x-ray examination to another radiologist, but this report indicated there was no evidence of any fracture ever having occurred.

The company questioned whether this injury should be included in the rates on the basis that it had resulted from a fall on ice. The area had been shoveled clean of snow, salted, and sanded on the day in question. However, as the day had progressed, the temperature had dropped rapidly, and skim ice had formed over the area. The company believed that conditions of quick freezes, sudden icing, and heavy snow falls that come with little or no warning were beyond the control of the company and in the nature of an "Act of God," and should be excluded on the basis of 5.12.

Decision: This injury should be considered industrial, and should be included in the work injury rates on the basis that the employee was injured while performing duties in the interest of his employer. The exception of paragraph 5.12 of the standard does not apply to these circumstances.

CASES 772 [A1.6 (f)]

After the completion of his regular shift, a Diesel locomotive engineer went to the depot locker room, changed from his work clothes to his street clothes, and started to go home when he noticed that he had locked his car keys and locker keys within his locker. He attempted several times to extricate the keys with a piece of wire through the louver of the locker, but when this failed he decided to look for something with which he could spring open the locker door. He walked out of the depot, and for some reason which he could not explain, he walked across the tracks instead of staying on the sidewalk, and fell into a locomotive pit, fracturing a rib.

The engineer was transported to the plant dispensary by ambulance, where he was treated by a physician. The injury occurred on a Friday night, and the engineer was not scheduled to return to work until Monday afternoon. The doctor instructed the man to go home, but to stop and see him on Monday. On Monday when the engineer checked in with the doctor, the doctor sent him home because he had a temperature, and the doctor did not want to expose the man to pneumonia because of his fractured rib. The engineer returned to see the doctor on Wednesday, when the doctor released him for regular or full work as a locomotive engineer.

Decision: This case should be considered a temporary total disability and included in the work injury rates. The Committee on Interpretations believed that this employee had not taken himself out of his employment when he went to search for something with which he could open his locker door. This case was quite similar to No. 435.

CASE 773 (1.1)

An employee who had been climbing a stepladder several times during this particular day was moving down the ladder when his ankle gave way, causing him to lose his balance and fall to the concrete floor, a distance of about 2½ feet. He later stated that he had definitely not slipped. Examination by hospital medical authorities, including an orthopedic surgeon, revealed no injury to the ankle or to the back; in fact, no objective symptoms were ascertainable. The employee had a history of osteoporosis, not connected with his work, and it was on this basis that the orthopedic surgeon would not allow the man to return to work because of the very great probability that he could be severely injured.

Decision: This incident should not be considered an industrial injury, and should not be included in the work injury rates. The Committee on Interpretations noted that there was no claim on the part of the employee that he had received an injury, and since the doctor found no injury, the case would not be reportable. The fact that the doctor, in the course of the examination, became aware of a chronic condition unrelated to the accident, and strictly on the basis of this finding prohibited his continuing in employment, would have no bearing on this case.

CASE 774 (5.2)

An employee was in the process of sliding the top section (approximately 35 to 40 lb) off a small die when the top section became stuck on the guide pins, causing a sudden stop. When this happened the employee felt a sudden pain in his back. No report of this incident was made until six days later when the man reported to first aid. He continued to work, but saw the company doctor the following day, and reported back to first aid for several days thereafter for heat treatment and rest in accordance with the company doctor's request. On the 17th day after the incident, an appointment was made for the employee to visit an outside doctor who ultimately had the man admitted to the hospital. The injury was diagnosed as an incomplete herniated intervertebral disc.

It was the opinion of the attending physician and the company doctor that the incident would not, in itself, have caused the type of injury sustained. They believed that if the particular area where the injury occurred had not been in a weakened condition, the incident would not have been severe enough to cause any injury.

Decision: This injury should be considered industrial, and should be included in the work injury rates in accordance with the ultimate extent of disability. The Committee on Interpretations believed that the sudden catching of the die section should be considered an incident which might well impose a sudden strain, thereby satisfying part (a) of paragraph 5.2. While the doctor indicated that the event would not have produced a herniated disc in a normal back, there was apparently an indication that such an event could have happened in a back with a pre-existing weakness, thus satisfying the requirements of paragraph 5.2 (b).

IT IS TIME TO NOMINATE

FOR THE HOWARD COONLEY MEDAL

FOR THE STANDARDS MEDAL

NOMINATIONS are now being received by the American Standards Association for award of the 1960 Howard Coonley Medal and Standards Medal. You are invited to submit nominations before June 30, 1960.

Forms and instructions can be obtained by writing the American Standards Association, 10 East 40 Street, New York 16, N. Y.

The Howard Coonley Medal is awarded "To recognize outstanding appreciation and support of voluntary standardization as a tool of management through which creative abilities may be released from routine operations, and to emphasize to the business community the importance of such use of standardization by management at high executive levels."

Past recipients of the Howard Coonley Medal are: The Honorable Herbert Hoover, Howard Coonley, William Batt, Senator Ralph E. Flanders, Thomas D. Jolly, Dr Harold S. Osborne, Frederick S. Blackall, Jr, Roger E. Gay, John R. Suman, Vincent deP. Goubeau.

Award of the Standards Medal recognizes long and devoted service to standardization, and is made "In recognition of outstanding contributions to the philosophy of the American Standards Association and to its application to voluntary standardization at the national level as well as the constructive development and application of standards and standardization at either company or industry levels."

Past recipients of the Standards Medal are: Paul G. Agnew, Frank O. Hoagland, Perry L. Houser, John Gaillard, James G. Morrow, Charles Rufus Harte, John R. Townsend, William P. Kliment, and William L. Barth.

New Books . . .

THE OPERATION OF A COMPANY STANDARDS DEPARTMENT. *PD 3542, December* 1959. *British Standards Institution. Copies available from the American Standards Association, 10 East 40 Street, New York 16, N. Y.* $0.55. Written to help anyone who plans to set up a standards department in his company, this booklet describes the basic tools for the job and provides background information for an understanding of the fundamental principles. It discusses the functions of a company standards department, standards and variety reduction, preparation of standards, making standards effective, classified coding, and the publication of standards.

The booklet was sponsored by the Joint Standing Committee of the British Institution of Production Engineers and the British Standards Institution on the use of standards in industry. It was written with the assistance and from the point of view of a small group of standards engineers, some from big manufacturing firms and others from process industries which use engineering equipment.

PHILOSOPHY, RESEARCH, EDUCATION, MANAGEMENT IN STANDARDIZATION. *Proceedings of the Eighth Annual Meeting,* 1959, *Standards Engineers Society,* 1025 *Connecticut Avenue, N.W., Washington 6, D.C. 8½ x 11 in. 90 pp. Heavy paper cover. Members* $4.00; *non-members* $5.00. Fifteen papers, published with charts and illustrations, describe how to achieve the savings that standardization makes possible. Subjects include use of standards to aid creativity, waste in design engineering when standards are lacking, value to consumers, absolute necessity for completely integrated company standards when modern automation, data processing, and microfilm are used, and government experience with standardization.

NASA AERONAUTICAL DICTIONARY. 1960. *National Advisory Committee for Aeronautics. Superintendent of Documents, Government Printing Office, Washington 25, D. C.* $1.75. The work of Dr Frank Davis Adams, who was employed by NASA as a lexicographer in charge of the dictionary program, the Aeronautical Dictionary defines approximately 4,000 aeronautical terms. Emphasis is on the application in aeronautics of the phenomenon described, even though the term may have a broader meaning. Terms relating to space technology are included only if they also have an aeronautical application.

Work on an astronautical dictionary is also under way. A word list is now being compiled.

New International Recommendations...

ISO Recommendations are published by the International Organization for Standardization, and IEC Publications are issued by the International Electrotechnical Commission, Geneva, Switzerland. Copies are available from ASA.

POWER CAPACITORS. *IEC Publication* 110. 1959. *First edition.* $2.40. Applies to power capacitor units for connection to a-c circuits, other than power-frequency distribution systems, with a frequency between 100 and 20,000 cycles per second for use for power factor correction and other modifications of circuit characteristics such as frequency adjustment. The publication consists of five chapters: General; Safety requirements; Quality requirements and tests; Ratings; and Guide for installation and operation.

RECOMMENDED METHODS FOR MEASUREMENTS OF THE ELECTRO-ACOUSTICAL CHARACTERISTICS OF HEARING AIDS. *IEC Publication* 118. 1959. *First edition.* $3.20. Describes practicable and reproducible methods of determining certain physical performance characteristics of air-conduction hearing aids with electronic amplification, and which are acoustically coupled to the eardrum by means of ear inserts, e.g., ear moulds or similar devices.

RECOMMENDATIONS FOR THE DIMENSIONS AND OUTPUT RATINGS OF ELECTRIC MOTORS. PART I: FOOT-MOUNTED INDUCTION MOTORS WITH SHAFT HEIGHTS BETWEEN 56 AND 315 MILLIMETERS (2⅛ AND 12½ INCHES). *IEC Publication* 72-1. 1959. *Third edition.* $2.40. These recommendations apply only to foot-mounted a-c induction motors with shaft heights between 56 and 315 millimeters, for voltages up to 600 volts and for frequencies of 50 and 60 cycles per second. The publication includes tables of standard dimensions, shaft extensions, and output ratings for these motors. Previous editions of IEC Publication No. 72, issued in 1954 and 1956, were status reports on the degree of progress made in the development of international standards for electric motor dimensions that ensure interchangeability. The new edition has the status of an official IEC recommendation. Part II of this edition will be issued in the near future as IEC Publication No. 72-2.

BIBLIOGRAPHICAL REFERENCES. ESSENTIAL ELEMENTS. *ISO* R77. *First edition. December* 1958. $1.20. This Recommendation specifies the elements that are considered essential for identification of a publication in any form of bibliographical reference. It defines the different forms a bibliographical reference may take and specifies the data that should be given in references to books, periodicals, collective works, and articles in periodicals. It also specifies the order in which the items should be listed. Twelve examples of bibliographical references are included, showing some of the different methods of presentation that are possible while still conforming to this ISO Recommendation.

RECOMMENDED METHOD FOR DETERMINING THE COMPARATIVE TRACKING INDEX OF SOLID INSULATING MATERIALS UNDER MOIST CONDITIONS. *IEC Publication* 112. 1959. *First edition.* $2.40. This describes a method of test intended to indicate the relative susceptibility of solid insulating materials to surface tracking when they are exposed, under electrical stress, to water and other contaminants. Surface tracking is a means of approximating the performance of insulating materials in relation to electrical breakdown.

RECOMMENDATIONS FOR FIXED NON-WIREWOUND RESISTORS TYPE I FOR USE IN ELECTRONIC EQUIPMENT. *IEC Publication* 115. 1959. *First edition.* $3.20. Applies to fixed resistors of types other than wirewound, with a rated dissipation not exceeding 2 watts and a rated resistance value between 10 ohms and 10 megohms. The resistors covered are those suitable for use in circuits where high stability properties are essential, for telecommunication equipment, and for electronic devices using similar techniques. Provides uniform requirements for judging the mechanical, electrical, and climatic properties of the resistors. and describes test methods. Recommendations are given for classification into groups according to the ability of the resistors to withstand conditions as specified in IEC Publication 68, Basic Climatic and Mechanical Robustness Testing Procedure for Components for Radio Communication.

RECOMMENDATIONS FOR RECEIVER-TYPE METALLIZED MICA CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT. *IEC Publication* 116. 1959. *First edition.* $3.20. Covers fixed capacitors with a dielectric of mica with the electrodes directly deposited on the mica sheets, for use in telecommunication equipment and similar applications in other electronic equipment. Provides uniform requirements for judging the mechanical, electrical, and climatic properties of capacitors, and describes test methods. Included are recommendations for classification into groups according to the ability of the capacitors to withstand conditions as specified in IEC Publication 68, Basic Climatic and Mechanical Robustness Testing Procedure for Components for Radio Communication. Also includes recommendations for indicating the capacitance value, tolerance, and temperature coefficient by means of a color code.

...Questions

Are acme screw threads covered in any of the German (DIN) standards?

Three of the German standards translated into English cover acme-type screw threads. These are: DIN 103, Acme Screw Thread, Single-Start; DIN 378, Sheet 1 and 2, Acme Screw Thread, Fine Pitch, Single Start; DIN 379, Acme Screw Thread, Coarse Pitch. German standards can be obtained through the American Standards Association.

How can right-hand and left-hand springs be identified?

Although a section of the American Standard Drafting Manual now being prepared deals with helical and flat springs, the question of identification is not answered in this standard. However, a proposed military standard on drawing requirements for mechanical springs gives a method of determining the hand of a spring, as follows:

"When viewed axially, the direction of helix is right-hand when it recedes in a clockwise direction and left-hand when it recedes in a counter-clockwise direction."

What is the European equivalent of the Dryseal thread?

The Dryseal thread is a special adaptation of the American Standard Pipe Thread, in which the truncation at crest and root is closely controlled in order to assure metal-to-metal contact at the points coincident with or prior to flank contact. This prevents spiral leakage.

There is no European standard equivalent to this as far as ASA knows. The pipe thread used throughout Europe is the British Standard Pipe Thread which is based on the Whitworth form. For example, the German standard for pipe threads is titled "Whitworth-Rohrgewinde fuer Gewinderohre und Fittings, DIN 2999." The nominal sizes are the same as in the British Standard and are given in the inch system, although the detail dimensions and tolerances have been converted to the metric system. The national standard of one of the European countries may be used for detail dimensions and tolerances. These countries have also given approval to ISO Recommendation R7-1954, Pipe Threads for Gas List Tubes and Screwed Fittings Where Pressure-Tight Joints Are Made on the Threads (⅛ Inch to 6 Inches). ISO Recommendation R7 is based on the British Standard for Pipe Threads. Copies of this international recommendation can be ordered through the American Standards Association at $1.50 per copy.

News Briefs...

• ON ADVICE of the industry, the American Standards Association has voted to participate in the work of the international committee on splines, ISO/TC 32, Splines and Serrations. AFNOR, the national standards body of France, holds the secretariat for the committee.

• THE STANDARDS ENGINEERS Society reports that its plans for the SES Ninth Annual Meeting are now well under way. The meeting will be held September 26-28 at the New Pittsburgh Hilton Hotel, Pittsburgh, Pennsylvania.

The tentative program includes such subjects as numbering systems, survey on standards, technical writing, value of decimal dimensioning, company standards (organizational set-up), computers, preparation of a standards manual, how to compute cost savings due to standards, and human factors in standardization.

Officers of the Society for 1960 are:

President—Richard G. Munroe, Standards Manager, Raytheon Company, Boston, Mass.

Vice-President—Kenneth W. Truhn, Supervisor, Administrative Engineering, Scintilla Division, Bendix Aviation Corporation, Sidney, N. Y.

Secretary—Jean A. Caffiaux, Staff Engineer, Electronic Industries Association, New York, N. Y.

Treasurer—Jay H. Bergen, Director, Engineering Services Laboratory, American Machine and Foundry Company, Stamford, Conn.

• AT ITS COMMITTEE WEEK meeting in June, the American Society for Testing Materials took note of the fact that it had passed the 10,000-member mark, and presented a special certificate to its 10,000th member.

More than 1400 engineers and scientists attended the Committee Week meetings of 35 of the Society's technical committees and their subcommittees and working groups. Action was taken at these meetings on new standards and revisions of existing standards for presentation at the Society's annual meeting, June 26-July 1 at Atlantic City, N.J.

• MEMBERS of the American Hotel Association purchase some $100 million worth of textiles and supplies annually. Early this year their buying problems were simplified when the Association issued its Certified Products List, 1960. The booklet makes available to hotel buyers a list of textile products certified by the supplier or manufacturer as being in compliance with American Standard L24, Minimum Performance Requirements for Institutional Textiles. It also includes a list of cleaning and maintenance products that have been tested and certified. The list is valid through January 31, 1961.

Copies of the Certified Products List, 1960, can be obtained from the American Hotel Association, 221 West 57th Street, New York 19, N.Y., at 25 cents each.

• STANDARDIZATION of aircraft and missile parts recently adopted by the Department of Defense will effect huge savings and improved procurement efficiency, states *Aerospace*, official publication of the Aerospace Industries Association.

Developed by AIA's National Aircraft Standards Committee, in close coordination with the Department of Defense, the parts standards will apply to all services and their contractors as well as the aerospace industry.

• THE EIGHTH Gillett Memorial Lecture, to be presented at the 63rd Annual Meeting of the American Society for Testing Materials, will take up the difficult problem of standardization of fuel elements in relation to design of nuclear reactors. Dr R. Carson Dalzell, assistant to the director of the Division of Reactor Development, U.S. Atomic Energy Commission, will be the lecturer. The meeting will be at Atlantic City, N.J., June 26-July 1, 1960, with the Gillett Lecture scheduled for June 28.

Dr Dalzell is the AEC representative on the Nuclear Standards Board of the American Standards Association and is a member of the U.S. delegation to meetings of ISO Technical Committee 85, Nuclear Energy. He is chairman of the Nuclear Engineering Division of The American Society of Mechanical Engineers and an active member of nuclear and metallurgical committees of the American Society of Metals and the ASTM as well as ASME.

• A LETTER from the Marathon Battery Company comments as follows about the American Standard Specifications for Dry Cells and Batteries, C18.1-1959:

"Our organization uses this document as a guide in production, sales, and engineering whenever possible. Our salesmen carry copies with them and we have furnished our principal customers with copies. I don't know of any other publication that finds as much use in dry cell engineering as far as non-military batteries are concerned."

• BRUCE A. McCANDLESS, vice-president of sales, Milwaukee Gas Light Company, has become a member of ASA's Standards Council, on nomination of the American Gas Association.

Mr McCandless worked on the staff of the American Gas Association Laboratories and at AGA headquarters for some years before joining the Milwaukee Gas Light Company in 1957. He was assistant managing director at the time he left AGA.

In his present position he directs all sales advertising and sales promotion activities for the Milwaukee Gas Light Company, including the development and coordination of industrial, commercial, and residential sales.

Bruce A. McCandless

Mr McCandless is regional director of the Home Improvement Council and chairman of its Gas Unity Committee. He also serves as a member of a number of AGA committees, including the Industrial and Commercial Promotion Advisory Committee, Midwest Regional Sales Council, General Promotional Planning Committee, and General Convention Committee.

He is active in many civic and charitable programs, and is a member of the Kiwanis Club and of the Milwaukee Association of Commerce.

AMERICAN STANDARDS

Just Published . . .

If your company is a member of the American Standards Association, it is entitled to receive membership service copies of these newly published American Standards. The ASA contact in your company receives a bimonthy announcement of new American Standards, which also serves as an order form. Find out who your ASA contact is and order your American Standards through him. He will make sure your company receives the service to which it is entitled.

ACOUSTICS, VIBRATION, AND MECHANICAL SHOCK

Preferred Frequencies for Acoustical Measurements, S1.6-1960 $0.35
Lists selected frequencies recommended for acoustical measurements, thus facilitating the comparison of results and encouraging the standardization of measuring equipment.

Sponsor: Acoustical Society of America

BUILDING AND CONSTRUCTION

Gypsum Plasters, Specifications for, ASTM C 28-59; ASA A49.3-1960 (Revision of ASTM C 28-58; ASA A49.3-1958) $0.30
Specifications covering five gypsum plasters; namely, gypsum ready mixed plaster, gypsum neat plaster, gypsum wood-fibered plaster, gypsum bond plaster, and gypsum gaging plaster for finish coat. Gives chemical properties and physical properties, time of setting, compressive strength, methods of testing, packaging and marking requirements.

Sponsor: American Society for Testing Materials

Gypsum and Gypsum Products, Methods of Testing, ASTM C 26-59; ASA A70.1-1960 (Revision of ASTM C 26-58; ASA A70.1-1958) $0.50
Covers procedures for chemical analysis and physical testing of gypsum and gypsum products. Describes apparatus to be used.

Sponsor: American Society for Testing Materials

Hollow Non-Load-Bearing Concrete Masonry Units, Specifications for, ASTM C 129-59; ASA A80.1-1960 (Revision of ASTM C 129-52; ASA A80.1-1953) $0.30
Specifications covering hollow, non-load-bearing concrete masonry wall units made from portland cement and suitable aggregates such as sand, gravel, crushed stone, bituminous or anthracite cinders, burned clay or shale, pumice, volcanic scoria, air-cooled or expanded blast-furnace slag, and other slag.

Sponsor: American Society for Testing Materials

ELECTRIC AND ELECTRONIC

Industrial Control Apparatus, AIEE No. 15, ASA C19.1-1959 (Revision of C19.1-1943) $2.20
Service conditions, ratings, tests, and performance standards for control apparatus such as contactors, drum switches, electromagnetic brakes, and other control devices for use on 750 v or less d.c. and 5000 v or less a.c.

Sponsor: American Institute of Electrical Engineers; National Electrical Manufacturers Association

Electrical Insulating Oils, Methods of Testing, ASTM D 117-58; ASA C59.2-1960 (Revision of ASTM D 117-54T; ASA C59.2-1955) $0.30
Applies to mineral oils of petroleum origin for use in oil-filled cables, transformers, oil circuit breakers, and other electrical apparatus as insulating or cooling medium, or both. Gives the definition, significance, and reference to the standard test procedure for acidity, color, dielectric strength flash point, gas content, power factor, viscosity, and other characteristics of insulating oil.

Power Factor and Dielectric Constant of Electrical Insulating Oils of Petroleum Origin, Methods of Test for, ASTM D 924-58; ASA C59.22-1960 (Revision of ASTM D 924-49; ASA C59.22-1951) $0.30
Gives two procedures for the subject characteristics: Procedure A for use as a referee test, and Procedure B for use as a routine test. Applies to insulating oil used in cables, transformers, oil circuit breakers, and similar apparatus for cooling or insulating purposes.

Sponsor: American Society for Testing Materials

Fluorescent Lamp Ballasts, Specifications for, C82.1-1960 (Revision of C82.1-1958, 2nd ed.) $0.80
Electrical and marking requirements of ballasts for preheat-, rapid-, and instant-starting fluorescent lamps and for cold-cathode lamps.

Sponsor: Electrical Standards Board

MECHANICAL

Spindle Noses for Tool Room Lathes, Engine Lathes, Turret Lathes, and Automatic Lathes, B5.9-1960 (Revision of B5.9-1954) $2.50
Specifications for each type and size of spindle nose. Used advantageously on other machines wherever chucks or fixtures must be mounted accurately and rigidly on revolving spindles. Dimensions of gages, face plates and fixtures, and nomenclature are also covered.

Sponsors: American Society of Tool and Manufacturing Engineers; Metal Cutting Tool Institute; Society of Automotive Engineers; National Machine Tool Builders' Association; American Society of Mechanical Engineers

Throw-Away Carbide Inserts for Cutting Tools, Specifications for, B80.1-1959 $4.50
Covers dimensional specifications, styles, and designations of solid sintered carbide inserts and their holders of the throw-away type. Three basic types of inserts and holders are listed: negative rake, positive rake, and neutral rake.

Sponsor: Cemented Carbide Producers Association

Carbon and Alloy Steel Nuts for Bolts for High-Pressure and High-Temperature Service, Specifications for, ASTM A 194-59T; ASA G38.1-1960 (Revision of ASTM A 194-58; ASA G38.1-1959) $0.30

Sponsor: American Society for Testing Materials

METALLIC COATINGS

Electrodeposited Coatings of Nickel and Chromium on Zinc and Zinc-Base Alloys, Specifications for, ASTM B 142-59; ASA G53.5-1960 (Revision of ASTM B 142-58; ASA G53.5-1959) $0.30
Requirements for electroplated coatings on zinc articles including a final coating of nickel or chromium where

both appearance and protection against corrosion of basic metal are important. Four types of coatings are covered: Types DZ, FZ, KZ, and QZ.

Sponsor: American Society for Testing Materials

METALLURGY

Safeguarding Against Embrittlement of Hot Galvanized Structural Steel Products and Procedure for Detecting Embrittlement, Recommended Practice for, ASTM A 143-59; ASA G8.13-1960 (Revision of ASTM A 143-46; ASA G8.13-1956) $0.30

Guide for avoiding embrittlement; factors in embrittlement. Gives test requirements for galvanized angle test and procedure to follow, as well as number of tests required.

Sponsor: American Society for Testing Materials

High-Strength Structural Rivet Steel, Specifications for, ASTM A 195-59T; ASA G42.1-1960 (Revision of ASTM A 195-52T; ASA G42.1-1956) $0.50

Covers rivet steel suitable for use with structural silicon steel. Lays down general requirements for delivery, process of manufacture, annealing, chemical composition, and tensile properties.

Sponsor: American Society for Testing Materials

Slab Zinc (Spelter), Specifications for, ASTM B 6-58; ASA H24.1-1959 (Revision of ASTM B 6-49; ASA H24.1-1949) $0.30

Covers slab zinc (spelter) made from ore or other material by a process of distillation or by electrolysis, in six grades; special high-grade; high grade; intermediate; brass special; selected; prime western.

Sponsor: American Society for Testing Materials

MISCELLANEOUS

ASTM Thermometers, Specifications for, ASTM E 1-59; ASA Z71.1-1960 (Revision of ASTM E 1-58; ASA Z71.1-1959) $0.75

Covers etched-stem liquid-in-glass thermometers graduated in Centigrade or Fahrenheit degrees.

Sponsor: American Society for Testing Materials

PETROLEUM PRODUCTS AND LUBRICANTS

Oil-Soluble Sodium Petroleum Sulfonates, Method of Analysis, ASTM D 855-56; ASA Z11.100-1960 $0.30

Calcium and Barium Petroleum Sulfonates, Method of Analysis, ASTM D 1216-56; ASA Z11.103-1960 $0.30

Effect of Grease on Copper, Method of Test for, ASTM D 1261-55; ASA Z11.104-1960 $0.30

Lead in New and Used Greases, Method of Test for, ASTM D 1262-55; ASA Z11.106-1960 $0.30

Sponsor: American Society for Testing Materials

PHOTOGRAPHY

Speed of Photographic Negative Materials (Monochrome, Continuous-Tone), Method for Determining, PH2.5-1960 (Revision of PH2.5-1954) $0.80

Provides for the determination of American Standard speed (arithmetic and logarithmic) of photographic roll films, film packs, miniature camera films, sheet films, and plates intended for the making of monochrome, continuous-tone negatives in pictorial still photography, exclusive of photography in the infrared. Speeds are directly applicable to exposure meters, exposure computers, and exposure tables.

Sponsor: Photographic Standards Board

Threaded Lens Mounts for 16mm and 8mm Motion Picture Cameras, PH22.-76-1960 (Revision of PH22.76-1951) $0.35

Specifies the dimensions required for mechanical and optical interchangeability of lenses for 16 mm and 8 mm motion picture cameras.

Sponsor: Society of Motion Picture and Television Engineers

PIPE AND FITTINGS

Forged or Rolled Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service, Specifications for, ASTM A 105-59T; ASA G17.3-1960 (Revision of ASTM A 105-58; ASA G17.3-1959) $0.30

Sponsor: American Society for Testing Materials

Cast Iron Culvert Pipe, Specifications for, ASTM A 142-59T; ASA G26.1-1960 (Revision of ASTM A 142-38; ASA G26.1-1942) $0.30

Specifications covering three classes of cast iron pipe intended for use in construction of culverts: standard cast iron, heavy cast iron, and extra-heavy cast iron. Specifies conditions under which cast iron pipe may be furnished as an alternate pressure pipe. Describes material to be used in manufacture, casting process, chemical composition, strength requirements, and testing procedures.

Sponsor: American Society for Testing Materials

Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service, Specifications for, ASTM A 182-59T; ASA G37.1-1960 (Revision of ASTM A 182-58; ASA G37.1-1959) $0.30

Sponsor: American Society for Testing Materials

Forged or Rolled Steel Pipe Flanges, Forged Fittings, and Valves and Parts for General Service, Specifications for, ASTM A 181-59T; ASA G46.1-1960 (Revision of ASTM A 181-58; ASA G46.1-1959) $0.30

Sponsor: American Society for Testing Materials

Nickel-Copper Alloy Seamless Pipe and Tube, Specification for, ASTM B 165-58T; ASA H34.2-1959 (Revision of ASTM B 165-49T; ASA H34.2-1955) $0.30

Requirements for nickel-copper alloy in cold-drawn seamless pipe and tubing intended for general corrosive service and for mechanical applications, in sizes of 8 5/8 in. and under in outside diameter, and with wall thicknesses of 0.500 in. and under.

Sponsor: American Society for Testing Materials

PLASTICS

Deformation of Plastics Under Load, Methods of Test for, ASTM D 621-59; ASA K65.4-1960 (Revision of ASTM D 621-51; ASA K65.4-1959) $0.30

Covers two procedures for determining deformation under compression of nonmetallic sheet and molded plastic materials of all classes and all commercial thicknesses, intended for structural and insulating purposes. Describes apparatus to be used and procedure to follow in preparation of test specimens.

Sponsor: American Society for Testing Materials

WOOD

Wood Paving Blocks for Exposed Platforms, Pavements, Driveways, and Interior Floors Exposed to Wet and Dry Conditions, Specifications for, ASTM D 52-59T; ASA O9.1-1960 (Revision of ASTM D 52-20; ASA O9.1-1958) $0.30

Specifications covering creosoted end grain wood paving blocks for exposed platforms, pavements, and other areas exposed to alternately wet and dry conditions. Covers material and recommended practice for installation.

Sponsor: American Society for Testing Materials

In Process . . .

As of April 19, 1960

Standards Council—Gives final approval to American Standards; Board of Review—Acts for Standards Council; Standards Board—Approves standards to send to Board of Review or Standards Council.

ACOUSTICS, VIBRATION, AND MECHANICAL SHOCK

In Standards Board

Acoustical Terminology, S1.1- (Revision of Z24.1-1951)

Sponsor: Acoustical Society of America

Characteristics of Auxiliary Equipment for Shock and Vibration Measurements, Method for Specifying, S2.4-

Sponsors: Acoustical Society of America; American Society of Mechanical Engineers

Criteria for Background Noise in Audiometer Rooms, S3.1-

Monosyllabic Word Intelligibility, Method for Measurement, S3.2-
Sponsor: Acoustical Society of America

Calibration of Mechanically-Recorded Lateral Frequency Records (58 IRE 19.S1) S4.1-
Sponsor: Institute of Radio Engineers

BUILDING AND CONSTRUCTION

American Standards Approved

Clay Drain Tile, Specifications for, ASTM C 4-59T; ASA A6.1-1960 (Revision of ASTM C 4-55; ASA A6.1-1956)
Sponsor: American Society for Testing Materials

Rail-Steel Bars for Concrete Reinforcement, Specifications for, ASTM A 16-59T; ASA A50.2-1969 (Revision of ASTM A 16-57; ASA A50.2-1958)
Sponsor: American Society for Testing Materials

Hollow Load-Bearing Concrete Masonry Units, Specifications for, ASTM C 90-59; ASA A79.1-1960 (Revision of ASTM C 90-52; ASA A79.1-1953)
Sponsor: American Society for Testing Materials

Solid Load-Bearing Concrete Masonry Units, Specifications for, ASTM C 145-59; ASA A81.1-1960 (Revision of ASTM C 145-52; ASA A81.1-1953)
Sponsor: American Society for Testing Materials

Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units, Specifications for, ASTM C 126-59T; ASA A101.1-1960 (Revision of ASTM C 126-57T; ASA A101.1-1958)
Sponsor: American Society for Testing Materials

Vitrified Clay Filter Block for Trickling Filters, Specifications for, ASTM C 159-59T; ASA A102.1-1960 (Revision of ASTM C 159-55; ASA A102.1-1956)
Sponsor: American Society for Testing Materials

In Standards Board

Reinforced Masonry, Building Code Requirements for, A41.2-
Sponsor: National Bureau of Standards

Lime-Cement Stucco, Specifications for, A42.5-
Sponsors: American Society for Testing Materials; American Institute of Architects

Withdrawal Being Considered

Coal-Tar Pitch for Steep Built-up Roofs, Specifications for, ASTM D 654-49; ASA A109.7-1955
Sponsor: American Society for Testing Materials

CHEMICAL

American Standard Approved

Common Name for the Pest Control Chemical 4-chloro-2-butynyl *m*-chlorocarbanilate: barban, K62.23-1960
Sponsor: U.S. Department of Agriculture

DRAWINGS, SYMBOLS AND ABBREVIATIONS

In Standards Board

American Standard Drafting Manual, Section 15—Electrical Diagrams, Y14.-15-
Sponsors: American Society of Mechanical Engineers; American Society for Engineering Education

Metallizing Symbols, Y32.12-
Sponsors: American Society of Mechanical Engineers; American Institute of Electrical Engineers

ELECTRIC AND ELECTRONIC

American Standard Approved

Supplement C57.12.00a-1960 to Section 00, General, of American Standard Requirements, Terminology and Test Code for Distribution, Power, and Regulating Transformers and Reactors Other Than Current-Limiting Reactors, C57.12.00-1958
Sponsor: Electrical Standards Board

In Board of Review

Varnished Cambric Insulated Cables, Specification for, IPCEA S-2-1946, ASA C8.13- (Revision of C8.13-1948)
Sponsor: Electrical Standards Board

In Standards Board

Safety Rules for the Installation and Maintenance of Electric Supply and Communication Lines (Including Definitions and Grounding Rules), NBS Handbook H32; ASA C2.2- [Revision of C2.2-1941 (R1947)]
Sponsor: National Bureau of Standards

Weather-Resistant (Weatherproof) Wire and Cable (URC Type), C8.18- (Revision of C8.18-1948)
Sponsor: Electrical Standards Board

Electrical Power Insulators, Test Methods for, C29.1- (Revision of C29.1-1944)
Sponsor: Electrical Standards Board

GAS-BURNING APPLIANCES

In Standards Board

Addenda Z21.10.1a to American Standard Approval Requirements for Gas Water Heaters, Volume I, Z21.10.1-1959

Addenda Z21.13.2b to American Standard Approval Requirements for Central Heating Gas Appliances, Volume II, Gravity and Forced Air Central Furnaces, Z21.13.2-1958 and Addenda Z21.13.2a-1959

Addenda Z21.13.3a to American Standard Approval Requirements for Central Heating Gas Appliances, Volume III, Gravity and Fan Type Floor Furnaces, Z21.13.3-1959

Addenda Z21.22a to American Standard Listing Requirements for Relief Valves and Automatic Gas Shut-Off Devices for Hot Water Supply Systems, Z21.-22-1958
Sponsor: American Gas Association

MATERIALS HANDLING

In Standards Board

57-Gallon Full-Removable-Head Universal Drum (UFC and CFC—Rule 40, NMFC—Rule 5), MH2.11-

30-Gallon Full-Removable-Head Universal Drum (UFC and CFC—Rule 40, NMFC—Rule 5), MH2.12-

30-Gallon Full-Removable-Head Universal Drum (ICC-17H), MH2.13-

16-Gallon Full-Removable-Head Universal Drum (UFC and CFC—Rule 40, NMFC—Rule 5), MH2.14-
Sponsor: Steel Shipping Container Institute

MECHANICAL

American Standard Approved

Square and Hexagon Bolts and Nuts, B18.2-1960 (Revision of B18.2-1955)
Sponsors: American Society of Mechanical Engineers; Society of Automotive Engineers

In Board of Review

Pipe Threads (Except Dryseal), B2.1- (Revision of B2.1-1945)
Sponsors: American Society of Mechanical Engineers; American Gas Association

Instrument Precision Ball Bearings, Requirements for, B3.10- (Revision of B3.10-1959)

Metal Balls, Specifications for, B3.12-
Sponsor: Anti-Friction Bearing Manufacturers Association

In Standards Board

Spindle Noses and Arbors for Milling Machines, B5.18- (Revision of B5.18-1953)
Sponsors: American Society of Tool Engineers; Metal Cutting Tool Institute; National Machine Tool Builders' Association; Society of Automotive Engineers; American Society of Mechanical Engineers

MEDICAL

In Board of Review

Anesthetic Equipment: Endotracheal Tubes, Z79.1-
Sponsor: American Society of Anesthesiologists

MINING

In Board of Review

Use of Wire Rope for Mines, Specifications for, M11.1- (Revision of M11-1927)
Sponsors: Wire Rope Technical Board; American Mining Congress

PHOTOGRAPHY

American Standard Approved

Roll Film and Leaders and Trailers for Aerial Photography, Dimensions for, PH1.10-1960 (Revision of PH1.10-1952)
Sponsor: Photographic Standards Board

PIPE AND FITTINGS

In Board of Review

Cast-Iron Pipe Flanges and Flanged Fittings, Class 125, B16.1- [Revision of B16.1-1948 (1953)]

Cast-Iron Pipe Flanges and Flanged Fittings, Class 250, B16.2- [Revision of B16b-1944 (R1953)]

Sponsors: American Society of Mechanical Engineers; Manufacturers Standardization Society of the Valve and Fittings Industry; Mechanical Contractors Association of America

In Standards Board

Pressure-Temperature Ratings for Types 304L and 316L Flange Series, B16.5a- (Addendum to B16.5-1957, Steel Pipe Flanges and Flanged Fittings)

Ratings for Non-Ferrous Wrought Flanges, B16.5b- (Addendum to B16.-5-1957, Steel Pipe Flanges and Flanged Fittings)

Sponsors: American Society of Mechanical Engineers; Mechanical Contractors Association of America; Manufacturers Standardization Society of the Valve and Fittings Industry

Seamless Steel Boiler Tubes for High-Pressure Service, Specifications for, ASTM A 192-58T; ASA B36.14- (Revision of ASTM A 192-55T; ASA B36.14-1956)

Electric-Resistance-Welded Steel Boiler and Superheater Tubes for High-Pressure Service, Specifications for, ASTM A 226-58T; ASA B36.18- (Revision of ASTM A 226-55T; ASA B36.18-1956)

Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Ordinary Uses, Specifications for, ASTM A 120-57T; ASA B36.20- (Revision of ASTM A 120-54; ASA B36.20-1958)

Copper-Brazed Steel Tubing, Specifications for, ASTM A 254-58; ASA B36.35- (Revision of ASTM A 254-55T; ASA B36.35-1956)

Seamless and Welded Ferritic Stainless Steel Tubing for General Service, Specifications for, ASTM A 268-58; ASA B36.36- (Revision of ASTM A 268-55; ASA B36.36-1956)

Seamless and Welded Austenitic Stainless Steel Sanitary Tubing, Specifications for, ASTM A 270-58; ASA B36.38- (Revision of ASTM A 270-55; ASA B36.38-1956)

Sponsors: American Society for Testing Materials; American Society of Mechanical Engineers

TEXTILES

American Standards Approved

Colorfastness to Acids and Alkalis, Test Method for, AATCC 6-1957; ASA L14.2-1960 (Revision of L14.2-1956)

Colorfastness of Wool Textiles to Carbonizing, Test Method for, AATCC 11-1957; ASA L14.3-1960 (Revision of L14.3-1956)

Colorfastness of Silk Textiles to Degumming, Test Method for, AATCC 7-1957; ASA L14.4-1960 (Revision of L14.4-1956)

Colorfastness of Wool Fabrics and Yarn to Fulling, Test Method for, AATCC 2-1957; ASA L14.5-1960 (Revision of L14.5-1956)

Colorfastness of Wool Textiles to Mill Washing and Scouring, Test Method for, AATCC 1-1957; ASA L14.6-1960 (Revision of L14.6-1956)

Colorfastness of Silk Textiles to Peroxide Bleaching, Test Method for, AATCC 13-1957; ASA L14.7-1960 (Revision of L14.7-1956)

Colorfastness to Stoving, Test Method for, AATCC 9-1957; ASA L14.9-1960 (Revision of L14.9-1956)

Single Jute Yarn, Methods of Testing and Tolerances for, ASTM D 541-58; ASA L14.34-1960 (Revision of L14.34-1953)

Glass Yarns, Methods of Testing and Tolerances for, ASTM D 578-58; ASA L14.36-1960 (Revision of L14.36-1951, 2nd ed.)

Jute Rove and Plied Yarn for Electrical and Packing Purposes, Methods of Testing and Tolerances for, ASTM D 681-58; ASA L14.44-1960 (Revision of L14.44-1953)

Rope Made from Bast and Leaf Fibers, Methods of Testing and Tolerances for, ASTM D 738-58; ASA L14.45-1960 (Revision of L14.45-1953)

Spun, Twisted, or Braided Products Made from Flax, Hemp, Ramie, or Mixtures thereof, Methods of Testing and Tolerances for, ASTM D 739-58; ASA L14.46-1960 (Revision of L14.46-1953)

Tex System to Designate Linear Density of Fibers, Yarn Intermediate, Yarns, and Other Textile Materials, Recommended Practice for Use of, ASTM D 861-58T; ASA L14.48-1960 (Revision of L14.48-1953)

Colorfastness to Light (Carbon-Arc Lamp Test; Daylight Test; Sunlight Test), AATCC 16A,B,C-1957; ASA L14.53-1960 (Revision of L14.53-1953)

Colorfastness of Dyed Textiles to Atmospheric Oxides of Nitrogen, Test Method for, AATCC 23-1957; ASA L14.54-1960 (Revision of L14.54-1951)

Resistance of Textiles to Mildew and Rot, and Evaluation of Textile Fungicides, Test Method for, AATCC 30-1957; ASA L14.55-1960 (Revision of L14.55-1951)

Colorfastness to Perspiration, Test Method for, AATCC 15-1957; ASA L14.56-1960 (Revision of L14.56-1956)

Colorfastness to Chlorine Bleaching (Cotton and Linen), Test Method for, AATCC 3-1957; ASA L14.57-1960 (Revision of L14.57-1956)

Colorfastness to Peroxide Bleaching, Test Method for, AATCC 29-1957; ASA L14.58-1960 (Revision of L14.58-1956)

Resistance to Wetting (Static Immersion Absorption Test), AATCC 21-1957; ASA L14.61-1960 (Revision of L14.61-1956)

Colorfastness to Pleating, Test Method for, AATCC 31-1958; ASA L14.63-1960 (Revision of L14.63-1956)

Resistance of Textiles to Insects, Test Method for, AATCC 24-1952; ASA L14.64-1960 (Revision of L14.64-1951)

Evaluation of Insect Pest Deterrents on Textiles, Test Method for, AATCC 28-1952; ASA L14.65-1960 (Revision of L14.65-1951)

Colorfastness of Silk Textiles to Mill Washing, Test Method for, AATCC 4-1957; ASA L14.70-1960 (Revision of L14.70-1956)

Colorfastness to Dry and Wet Heat (Hot Pressing), Test Method for, AATCC 5-1957; ASA L14.71-1960 (Revision of L14.71-1956)

Colorfastness to Crocking (Rubbing), Test Method for, AATCC 8-1957; ASA L14.72-1960 (Revision of L14.72-1956)

Dimensional Changes in Textiles Other Than Wool, Test Method for, AATCC 40-1957; ASA L14.76-1960 (Revision of L14.76-1956)

Resistance to Water Penetration (Impact Penetration Test), Test Method for, AATCC 42-1957; ASA L14.78-1960 (Revision of L14.78-1956)

Colorfastness of Textiles to Commercial Laundering and Domestic Washing (Accelerated Tests Nos. IIA, IIIA, and IVA), Test Method for, AATCC 61-1957; ASA L14.81-1960 (Revision of L14.81-1956)

Colorfastness to Water (Distilled or Deionized Water, Sea Water, and Chlorinated Pool Water), Test Method for, AATCC 63-1957; ASA L14.83-1960 (Revision of L14.83-1956)

Damage Caused by Retained Chlorine, Test Method for, AATCC 69-1958; ASA L14.86-1960 (Revision of L14.86-1956)

Average Fiber Diameter of Wool Tops, Card Silver, and Scoured Wool by Micronaire Method, Methods of Test for, ASTM D 1282-57T; ASA L14.104-1960

Alkali-Solubility of Wool, Method of Test for, ASTM D 1283-57; ASA L14.105-1960

Sponsors: American Association of Textile Chemists and Colorists; American Society for Testing Materials

American Standards Withdrawn

Methods of Testing Woven Asbestos Cloth, L14.35-1953

Sponsors: American Society for Testing Materials; American Association of Textile Chemists and Colorists

Women's and Girls' Woven Shoe Fabrics, L22.1.21-1952

Men's and Boys' Woven Athletic-Uniform Fabrics, L22.2.16-1952

Embroidery Threads, Ribbons and Trimmings, L22.2.23-1952

Sponsor: National Retail Merchants Association

WOOD

American Standard Approved

Creosoted End-Grain Wood Block Flooring for Interior Use, Specifications for, ASTM D 1031-59; ASA O10.1-1960 (Revision of ASTM D 1031-55; ASA O10.1-1958)

Sponsor: American Society for Testing Materials

NEWS ABOUT AMERICAN STANDARDS PROJECTS

Automation—

Some time in the fall, the American Standards Association will call a conference to look into the need for "automation standardization." This will be done as the result of a request from the Engineering Department of the Electronics Industries Association and the National Electrical Manufacturers Association.

The request states: "The rapidly growing need for automated systems in this and other countries has resulted in a flurry of divergent activity in associated standards fields. Because 'automation' establishes an intimate relationship between systems components, product groups which in the past have been more or less foreign to each other are now finding themselves acutely dependent upon each others' standards on ratings, definitions, terminology, symbology, etc."

Oldline products technology is being intermixed with new systems philosophy, it is pointed out. Very few standards exist which embrace the concepts of the new technology; therefore, many different technical groups are individually engaged in formulating them. As a result, dissimilar standards are beginning to appear for computers, feedback controls systems, data processing, and other equipment related to automation.

Experience with standards has shown that when many groups work separately, the result is confusion and an unnecessary collection of divergent industry standards. To prevent such a result, NEMA and EIA have recommended that ASA invite those groups now developing standards in this field to discuss the implications of the problem and its possible solution within the framework of ASA. They also suggested early fall for the conference to give the groups concerned ample time to plan their participation.

Nuclear Energy—

G. Edwin Brown, Jr, recently appointed manager for Standards and Radiation Controls of the Atomic Industrial Forum, has been appointed secretary of ASA Sectional Committee N2, General and Administrative Standards for Nuclear Energy, and N7, Radiation Protection.

Committee N2 was responsible for the American Standard Radiation Symbol, N2.1-1960, approved early this year. Plans are being made for international consideration of this standard symbol at the meeting of the International Organization for Standardization's Technical Committee 85 in May. Committee N2 is also working on a revision of the American Standard Glossary of Nuclear Terms, N1.1-1957, and has prepared a number of documents for consideration by Subcommittee 1, Definitions and Symbols, of ISO/TC 85.

The N7 committee is voting on a proposed American Standard for Uranium Mines and Mills (concentrators) prepared by N7 Subcommittee 1. Duncan Holaday is chairman of the subcommittee. He is director, Sanitary Engineering, Division of Special Health Services, U.S. Public Health Service, Occupational Health Field Station, Salt Lake City.

The Atomic Industrial Forum is sponsor of Sectional Committee N2 and co-sponsor with the National Safety Council of Sectional Committee N7.

Mr Brown reports that the Committee on Codes and Standards of the Atomic Industrial Forum, of which he is secretary, is creating a new executive committee which will include representation from all the nuclear sectional committees of ASA. Through this action, Mr Brown explains, the committee will have a comprehensive view of the entire nuclear standards field, thereby increasing its effectiveness.

Electrical Measuring Instruments, C39—

Sponsor: Electrical Standards Board

F. X. Lamb, vice-president of engineering, Weston Instruments, Division of Daystrom, Incorporated, took office early this year as chairman of Sectional Committee C39. He reports that the committee may consider broadening its scope to permit the inclusion of instruments having digital presentation even though they may use electronic means to perform their function. At the present time, the scope of C39 excludes electronic instruments. Mr Lamb explains that such standards would be developed in close cooperation with the American Institute of Electrical Engineers, the Institute of Radio Engineers, the National Bureau of Standards, and others concerned.

F. X. Lamb

Mr Lamb also has ideas for revising the present American Standard C39.1-1959, Requirements for Electrical Indicating Instruments (Panel, Switchboard, and Portable Instruments), to include vertical and horizontal edgewise instruments as well as certain panel instruments other than round which are being widely accepted.

Mr Lamb has worked with Weston Instruments since 1921. From 1937 to 1939 he was resident engineer for Weston assigned to the Nippon Electric Company in Tokyo, Japan. He returned to this country in 1940 as project engineer on research and development. In 1952 he became chief engineer. At present he is not only vice-president of engineering but also consultant to the vice-president of operations.

Mario Pisciotta, American Standards Association staff, is secretary of Sectional Committee C39.

Code for Pressure Piping, B31—

Sponsor: American Society of Mechanical Engineers

Interpretations submitted by the sponsor.

From time to time certain actions of Sectional Committee B31 are published for the information of interested parties. While these do not constitute formal revision of the Code, they may be utilized in specifications, or otherwise, as representing the considered opinions of the committee.

Pending revision of the Code for Pressure Piping, B31.1-1955, the sectional committee has recommended that ASME, as sponsor, and ASA publish selected interpretations so that industry may take immediate advantage of corresponding proposed revisions. Recently a number of cases concerning piping in nuclear power plants have been approved for publication. These are identified as N-1, N-7, N-8, N-9, and N-10. Cases N-2 and N-6 are not ready for publication at this time, but are currently under revision by the Advisory Committee on Nuclear Piping.

Cases N-1 and N-7 were published in the April issue. Other cases will appear in this magazine as space permits.

Case N-8 is published here as an interim action of Sectional Committee B31.

CASE N-8

Inquiry: May Types 304, 316, 321, 347, 348, 309, and 310 stainless steels be used for piping of nuclear energy installations handling liquid sodium and sodium-potassium mixtures under the rules of Section 1 of the Code for Pressure Piping, B31.1-1955?

Reply: It is the opinion of the committee that Types 304, 316, 321, 347, 348, 309, and 310 stainless steels may be used for the piping of nuclear energy installations handling liquid sodium and sodium-potassium mixtures for construction under Section 1, provided the following conditions are observed:

(1) The materials shall conform at least to one of the following specifications:

Pipe	ASTM A 376
	ASTM A 358
Welding Fittings	ASTM A 403
Forgings	ASTM A 182

The carbon content shall be 0.04 to 0.10 percent by check analysis.

(2) If welding is employed, all completed welds shall be inspected as follows:

(a) All longitudinal welds shall be fully radiographed.

(b) All circumferential welds shall be fully radiographed.

(c) Where the size or configuration of the weld does not permit effective radiographing, it shall be examined by the fluid penetrant method.

(3) The allowable stress values for seamless materials shall be as shown in the table.

(4) It shall be the responsibility of the designer to take into account the decarburization of stainless steels in sodium and sodium-potassium mixtures.

(5) A joint factor of 1.00 shall be applied to longitudinal welds which have been fully radiographed.

TYPE:	304	316	321 347 348	309	310
TEMPERATURE, F					
—20 to 100	18,750	18,750	18,750	18,750	18,750
200	16,650	18,750	18,750	18,750	18,750
300	15,000	17,900	17,000	17,300	18,500
400	13,650	17,500	15,800	16,700	18,200
500	12,500	17,200	15,200	16,600	17,700
600	11,600	17,100	14,900	16,500	17,200
650	11,200	17,050	14,850	16,450	16,900
700	10,800	17,000	14,800	16,400	16,600
750	10,400	16,900	14,700	16,200	16,250
800	10,000	16,750	14,550	15,700	15,700
850	9,700	16,500	14,300	14,900	14,900
900	9,400	16,000	14,100	13,800	13,800
950	9,100	15,100	13,850	12,500	12,500
1000	8,800	14,000	13,500	10,500	11,000
1050	8,500	12,200	13,100	8,500	7,100

NOTE: These stress values do *not* include joint factors or quality factors.

Interpretations of the code in effect March 1, 1960, have been published in a pamphlet that is available from ASME at $1.00 per copy.

Pallets, MH1—

Sponsors: American Society of Mechanical Engineers; Society of Packaging and Handling Engineers

A number of subcommittees are actively at work. The Definitions Subcommittee has drafted a set of definitions which are now being reviewed by Sectional Committee MH1. The Testing Subcommittee has made a study of the drum test method for pallets and is now studying the "in plant use" tests recommended by the National Wooden Pallet Manufacturers Association. The Sizes Subcommittee is considering standardization of the third dimension of pallets —height. Width and length are included in the recently completed American Standard MH1.1-1959. This committee is cooperating in the activities of the International Organization for Standardization, ISO/TC 51, Pallets for unit load method of material handling.

Data Processing Machines, X3—

Sponsor: Office Equipment Manufacturers Institute

A sectional committee to handle the work of this new project is now being organized. Scope of the committee's work will be:

"A single standard for logical representation of characters and character format in the media used for interchange of instruction, data, and control information between data processing equipments, together with orderly provision for expansion and alternatives. Standard terminology and definition of data processing operations and functions."

Office Machines, X4—

Sponsor: Office Equipment Manufacturers Institute

This new project, just initiated, will work under the sectional committee method, with the following scope:

"Standardization of terminology and definitions of functions of office machines. Standardization of other fundamental elements of interest to users and manufacturers, such as output formats."

Glossary of Environmental Terms, Z84—

Sponsor: Institute of Environmental Sciences

As more and more emphasis is placed on the conquest of space, the effects of various kinds of environment on equipment and instruments assume greater importance. More time is being given to the study of such factors of environment as very high and very low temperatures and the effect of vibration, radiation in space, acoustics, nuclear radiation, and the outer fringes of the earth's atmosphere on missiles and space vehicles.

Now, a move has been made to standardize the definitions of terms used in the new field of environmental sciences. At the request of the Institute of Environmental Sciences, the American Standards Association has initiated a project for development and approval of a glossary of environmental terms.

Scope of the project will be: "To select and to define terms to describe factors of environment."

A sectional committee is to be organized under the sponsorship of the Institute of Environmental Sciences. Although the space environment will be an important part of its work, the committee will also cover terms used in connection with the effect of dust and humidity, vibration, gravity, and similar problems on military and commercial equipment on earth.

Library Supplies and Equipment, Z85—

Sponsor: American Library Association

On recommendation of a general conference of library equipment and supply manufacturers and library consumer groups March 21, the American Standards Association has approved initiation of this new project.

Scope of the work will cover: "Definitions, specifications, dimensions, and methods of testing in the field of library supplies and equipment, exclusive of machine storage and retrieval."

The American Library Association will sponsor and administer the work of the committee through its Library Technology Project. Frazer G. Poole, director of this project, named by ALA as chairman of Z85, plans to call a meeting soon to organize the committee.

Does Industry Need a National Standards Agency?

DINNSA

by CYRIL AINSWORTH

FOR A NUMBER OF MONTHS, this column has discussed the objectives of the American Standards Association and the principles under which it operates. This will be the last of the series. It would be inappropriate to discontinue these discussions, however, without once more tying them in to the title, "Does Industry Need a National Standardization Agency?"

Yes, industry does need a national standardization agency. That industry recognizes this is clearly indicated by its increasing use of ASA machinery, its greatly increased use of American Standards, and its constantly growing interest in international standardization work. It will be recalled, however, that ASA was created not to serve industry alone, but to serve all segments of the national economy. Based on this premise, a more appropriate question would be, "Does the *country* need a national standardization agency?"

When the founding organizations developed the original constitution for the American Engineering Standards Committee, as ASA was first called, it made provisions in the constitution for governmental agencies to become founding members. This was to establish clearly the new national standards body as an agency serving government as well as industry.

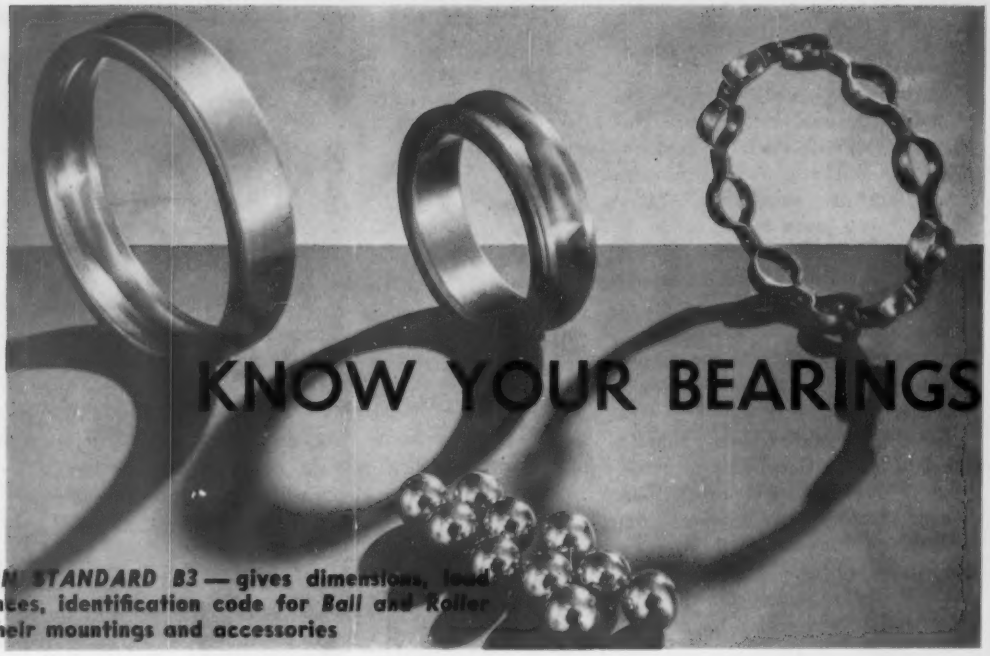
The feeling of some that government is all powerful and does not need the assistance of so-called private agencies is not as strong today as it was in wartime. Fortunately, even during wartime, this feeling is not widespread in governmental services, as evidenced by the help ASA gave in developing war emergency standards.

In recent months, even greater emphasis has been placed on directives and pronouncements from the Department of Defense that indicate a policy of greater dependence upon nationally recognized standards for procurement of military supplies.

In its capacity as the national coordinating agency, ASA has served in the past as the mechanism for coordinating the technical opinions, experiences, and attitudes of industry and government. It can do so to an even greater extent in the future.

Never in the history of standardization has industry been faced with a greater challenge than at present to have its standards receive true national status through approval by ASA as American Standard. It is logical that government would be more likely to use a document that has been found acceptable by all groups concerned rather than a standard developed by a single proprietary body. Industry can assume leadership in coordinating government and private standards by processing the standards it develops to obtain national recognition, and by presenting such standards in their status as American Standard to the governmental agencies concerned.

In this way, ASA serves as a true national standardization agency on behalf of the entire economy.



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